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# China Report

AGRICULTURE



FOREIGN BROADCAST INFORMATION SERVICE

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19 March 1986

# CHINA REPORT

## AGRICULTURE

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NATIONAL

HE KANG ON IMPROVING AGRICULTURAL PRODUCTS

Beijing RENMIN RIBAO OVERSEAS EDITION in Chinese 25 Nov 85 p 3

[Article: "Minister He Kang Suggests that the Quality of Agricultural Products Be Improved and that Famous, Special, Scarce, High-Quality, and New Products Be Developed"]

[Text] At the first national Exhibition of High Quality Food Products and Comparison and Appraisal and Information Exchange Conference, Minister He Kang [0149 1660] of the Ministry of Agriculture, Animal Husbandry and Fishery suggested that improvement of the quality of agricultural products and great efforts to develop famous, special, scarce, high-quality, and new products is one of the most urgent tasks faced by agricultural production in China.

He Kang said that comprehensive and sustained growth has been achieved in all types of agricultural products since the 3d Plenum of the 11th CPC Central Committee. The various production indices stipulated for agriculture in the Sixth 5-Year Plan will be completed or surpassed and the gross value of agricultural output has grown at the unprecedented rate of 10 percent each year. The quality of agricultural products in China is low, however, product variety is limited, and the contradiction between our inability to adapt to the rising standard of living of the Chinese people and expand exports is becoming increasingly acute. For this reason, to meet the requirement of guaranteeing sustained quantities of agricultural products and stable growth, the quality of agricultural products should be raised more quickly and the relationship between quality, results and speed should be handled correctly.

He Kang said that this Comparison and Appraisal and Information Exchange Conference brought together more than 1,500 famous, special, scarce, high-quality and new products and their series of processed products from 28 provinces, autonomous regions and directly administered municipalities across China. Exhibition, comparison, appraisal, and exchange of experiences and techniques for developing high-quality agricultural products have opened up further the relationship between production and sales of these products, and gradually satisfying demand on domestic and foreign markets.

12539/7687  
CSO: 4007/124

NATIONAL

## SUMMARY OF RURAL ECONOMIC CONDITIONS

Beijing ZHONGGUO CUNZHEN BAIYE XINXI BAO in Chinese 14 Nov 85 p 1

[Article: "A Summary of the Situation in the Rural Economy"]

[Text] 1. Another Good Harvest of Summer Grain

On the basis of 6 successive years of bumper agricultural harvests in China, cropping structures have undergone further readjustment, the area planted to grain and cotton has declined, and the area planted to cash crops has increased. In this new situation, summer grain output in China still surpassed 175 billion jin, and an excellent harvest second only to 1984's was achieved. Predicted output of summer harvested rapeseed is 107 million dan, up by 31.6 percent over 1984.

2. Excellent Momentum Has Appeared in Animal Husbandry

China now has over 100 million cattle, horses, mules and donkeys, more than 300 million pigs, and 150 million sheep. Animal husbandry in Nei Monggol has changed from dependence on the heavens in livestock raising to one an established livestock raising base and a new and flourishing situation has begun to appear. During the first half of 1985, a substantial increase in slaughter rates boosted the number of livestock in the region by more than 410,000 over the same period in 1984, and total output value increase 22 percent. Sustained growth in the numbers of large animals, sheep, pigs, rabbits and chickens being raised in Ningxia occurred during the first half of 1985, and there is good momentum in the obvious improvement of economic results. There has been a bumper harvest in animal husbandry production in Qinghai. During the first half of 1985, livestock regions of Qinghai saw the birth of 2.96 million live animals with a survival rate of 84.4 percent, nearly 10 percent higher than during the same period in 1984. The death rate for mature livestock was 2.48 percent, down by 1.14 percent over the same period in 1984, a reduction of 190,000 deaths. Animal husbandry in Gansu has begun to shift from basic agriculture to a commodity type and the inventories of pigs, cattle, sheep, and so on as well as slaughter rates have increased substantially over the same period in 1984. In Jilin, animal husbandry has shifted from restorative growth to developmental growth. All forms of animal husbandry production are developing in the direction of commercialization, specialization and diversification. An excellent momentum of comprehensive growth unseen for many years has appeared in animal husbandry production in

Hubei. Pig production has grown substantially, as has herbivorous livestock production. Poultry raising is developing vigorously and the market for animal products is flourishing.

### 3. Marine and Freshwater Breeding Are Growing

According to statistics from aquaculture departments, marine and freshwater breeding both have increased output throughout China during the first half of 1985. Total output in aquaculture reached 2.524 million tons, up by 8.3 percent over the same period in 1984. By the end of June, the total breeding area in China had reached 49,740 mu, up by 9 percent over the same period in 1984. Output of freshwater products reached 881,000 tons, up by 29 percent over the same period in 1984. Output in marine breeding also grew and total output reached 195,000 tons, up by 116,000 tons over the same period in 1984.

### 4. Production and Sales of Farm Machinery Are Flourishing

The total output value in farm machinery from January through June of 1985 was 6.93 billion yuan, equal to 63 percent of the annual plan and up by 37.9 percent over the same period in 1984. Of the 18 primary products, more than 50 percent of the plan has been completed for 11 products. The total value of sales of the nationwide system of farm machine companies in the first half of 1985 was 4.7 billion yuan, up by 32.9 percent over the same period in 1984, the largest volume of sales in recent years.

### 5. The Structure of Peasant Cash Incomes Is Changing

According to analysis of data from a sample survey of 57,358 peasant households in 27 of China's provinces, autonomous regions and centrally-administered municipalities by the Central Rural Sample Survey Team of the State Statistics Bureau, the following trends have appeared in peasant incomes and expenditures during the first half of 1985:

The structure of cash incomes has changed. The per capita cash income of rural households during the first half of 1985 was more than 154 yuan, up by 42.9 percent over the same period in 1984. Incomes from secondary and tertiary industries were up by 6.23 percent over the same period in 1984, a rate of growth that exceeded that of primary industries. The peasants received 74.1 percent of their income from secondary and tertiary industries, and the proportions were 9.2 percent and 24.4 percent, respectively. Of the various types of cash received by peasant families from collective administration, the most was received directly from township and town enterprises, up by 54.4 percent over the same period in 1984.

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NATIONAL

# FREE MARKETS BECOME CHIEF MEAT, VEGETABLE SUPPLIERS

HK280801 Beijing CHINA DAILY in English 28 Feb 86 p 1

[By Nie Lisheng]

[Text] Free markets have replaced state shops to become the chief suppliers of meat and vegetables in China's cities since the Central Government scrapped its monopoly on marketing of agricultural and sideline products.

According to the State Industrial and Commercial Administration, the number of free markets increased by 4,837 to 61,337 in 1985 when total business volume jumped 38 percent to 6.32 million yuan, accounting for 15.65 percent of the country's retail sales.

In all cities except for Beijing and Shanghai, more than half of the meat, poultry, eggs, vegetables and aquatic products consumed were bought at free markets.

In many cities, country traders and urban pedlars dominate the market of non-staple foods, leaving state stores with little business as they have found difficulty in obtaining supplies, Zhang Xingxiang, an official of the administration told CHINA DAILY.

A survey of 36 cities shows that farmers marketed four to six times more vegetables than state-run shops in Tianjin last year, while in Nanjing they sold three times more poultry than state stores.

The same situation was reported in Guangzhou, Harbin and Wuhan, where private sales of beef, mutton and fish exceeded those of state-run shops by four, five and nine times respectively.

However, Zhang said, the prices of goods in free markets jumped sharply last year, causing a wave of consumer complaints and state concern, especially in May and June when prices rocketed by 30 to 40 percent compared with 1984 levels.

But around the end of the year, prices began to drop slightly and gradually stabilized, he added. Compared with the end of 1984, prices levelled off at an average of 17.9 percent higher earlier this year thanks to increased farm production and supply.

As state-run shops had failed to compete with market traders for vegetable and meat supplies at favourable prices, Zhang said, many localities were taking measures to help bring down the rising prices.

Since the last quarter of 1985, six provinces and 10 major cities, including Beijing, Shanghai, Tianjin, Xilan and Wuhan have experimented with price controls by setting price ceilings to prevent tradesmen from profiteering.

Prices are allowed to rise to 10 to 30 percent above the state-fixed prices temporarily on some vegetables and meat when they are in very short supply.

In fact, Zhang said, the long-standing price discrepancies between free markets and state shops had almost disappeared since late last year as farmers have become major traders of their own products.

In Beijing, for instance, free market prices were only 1.2 percent higher on average than state-set prices at the end of 1985, down from 20.6 percent for the same period of 1984, while in Tianjin the figure dropped by 52 percent from 64.9 percent to 12.9 percent.

/12913

CSO: 4020/234

NATIONAL

DEVELOPMENT OF AGRICULTURAL EXPORTING URGED

Beijing JINGJI RIBAO in Chinese 7 Dec 85 p 3

[Article by He Kaiyin [0149 7030 5593]: "Exploit the Latent Advantages of China's Agricultural Product Exports"]

[Test] Greater foreign exchange earnings and achievement of an international balance of payments is the key to achievement of the Seventh 5-Year Plan. Fostering the role of agriculture in creating foreign exchange through exports is an issue that should receive attention from all areas.

I. The Latent Advantages of China's Agricultural Product Exports

Industrial production and science and technology in China are not as advanced as in the developed nations. China's export product advantages in recent years have come mainly from agriculture. Coal, petroleum and nonferrous metals are non-renewable resources and there are limits to re-enrichment of their reserves. Agricultural resources, however, are renewable. Under conditions of ecological balance and benevolent cycles, farm products will become increasingly abundant and their role in creating foreign exchange can only become stronger, not weaker. Continual growth in the world's population and reduction in the amount of cultivated land per capita mean that demand for grain will continue to grow, and agriculture, especially grain, will continue to have advantages in export products for a long time to come.

China has been an agricultural nation since ancient times. China's advantageous geographical location and enormous natural conditions, her especially rich organic resources, long history and the industriousness and intellect of the Chinese nation have developed and created large amounts of excellent crop varieties through practice in production. Soybeans, paddy rice and other important grain crops were first produced in China. At the International Exposition in 1973 in Vienna, China was honored as the "soybean nation." For various reasons, especially the 10 years of chaos [Cultural Revolution], China's farm products were almost totally removed from international markets, even to the extent that we were unable to maintain self-sufficiency. It should be noted that there are enormous potential and advantages in the famous and special products that were produced first in China and in our natural conditions and resources. With effort, it is entirely possible that we once again can gain an important position in international markets. Moreover, we also have

an enormous genetic pool, especially in wild soybean resources of various types, that can provide the most valuable parent material for breeders. No other nation is capable of catching up with this. In another area, we also have geographical advantages. I refer to the fact that China's soybeans are the equal to those of the U.S. in quality and that at identical prices, they are willing to buy them from China and will not search far and wide for what lies close at hand.

## II. Consider the Social Benefits of Farm Product Exports

Some have said that farm product exports lose money and that foreign trade departments always have had to rely on deficit subsidies from the state. We recently did a study of international market conditions. On the surface, certain exported farm products are not greatly different from international market prices or may even be slightly lower. A more intensive examination shows that the situation is different. Levels of industrial production and science and technology in China are too low. There are large amounts of cheap labor in rural areas and there is a large price scissors between industrial and agricultural products. Comparatively speaking, the prices of industrial products are too high while those of agricultural products are too low in relative terms. The situation in developed nations is exactly the opposite. Because the degree of mechanization and electrification in agricultural production is not as high as in industrial production, labor productivity is much lower. The price of a commodity is determined by its value, which must be assessed according to the amount of socially necessary labor. Labor productivity for farm products is low and they take up more socially necessary labor, so the price is high. Labor productivity for industrial products is high and they take up less socially necessary labor, so the price is low. A comparison of the production situation in China with foreign countries shows that few have higher labor productivity than China while their labor productivity for industrial products is much higher than in China, which creates this sort of distinction: although the price of grain on international markets is not greatly different from the price of grain in China and the use value is about the same, the exchange value is several times or even several tens of times higher than within China. If we carry out intensive processing of farm product exports, we can make further improvements in economic results, increase rural employment and achieve benevolent cycles. It is apparent that the key to developing profits from farm product losses is how we understand this problem and how we seek out new routes.

## III. Search for New Routes To Develop Farm Product Exports

Agricultural production attained great vitality after the 3d Plenum of the 11th CPC Central Committee and a situation of "difficulties in selling grain" and "difficulties in selling oil crops" appeared everywhere. This is an excellent opportunity for China to create foreign exchange through farm product exports. Unfortunately, our farm products lack an ability to compete and cannot easily enter international markets. There are no more than two causes for this: the first is system shortcomings and the second is low product quality.

In the area of systems, foreign trade departments are engaged in exporting, but the benefits of foreign exchange income often are embodied in other departments.

Although certain other problems like poor management and administration can be found in foreign trade departments, the overall situation is that loss of money through farm product exports is a normal thing. On the surface, a little money is lost but actually a great deal of money is gained. If import and export systems are managed by foreign trade departments, monetary losses would not occur, and furthermore, the initiative of foreign trade departments to create foreign exchange would be motivated fully.

The poor quality of farm products and their lack of competitive ability actually can be said to be a systemic shortcoming. Grain departments at present are unable to purchase according to product variety and set prices according to quality. Purchases of paddy rice are divided only into long-grained rice, round-grained rice and glutinous rice, while wheat purchases are divided only into red hull and white hull varieties. For soybeans, corn, sorghum and other crops, there is no concern for product variety and generally no distinction is made between yellow and white, with high and poor quality treated the same. In this way, a better variety is mixed with other varieties and there is a loss of competitive abilities. An example is Anhui's Mingguang [2492 0342] green beans, which have large and full kernels, a sparkling quality and a greenish color like green bamboo or jade. They have a fresh flavor, are rich in nutrition and become soft as soon as the pot boils. They have become a valuable product that is famous throughout the world. Foreign businessmen competed to purchase them at the Guangzhou Trade Fair, but unfortunately we had only samples and could not supply them with the goods. Why? High quality and high output are two contradictory aspects for all crops because especially high quality means that yields are lower than for the normal varieties. Purchasing departments do not care about product varieties and purchase them all according to unified purchase prices. The peasants care nothing about the brightness of their green color and do not plant them if they are dry and crisp. No policy of higher prices for higher quality is followed, so there is no doubt that the farm products have found it difficult to enter international markets. Valuable, rare and famous varieties may even be in danger of dying out in domestic markets.

#### IV. Make a Concerted Effort To Construct Farm Product Export Base Areas

In searching for the crux of the farm product export problem, we can use the following medicine to cure the problem:

First, join forces in dealing with foreigners and share the benefits. I propose that leading departments engage in coordination work and that horizontal relationships among departments be strengthened to join forces and divide up internal impediments to form a unified joint force in dealing with foreigners. Import and export activities should be managed in a unified manner by foreign trade departments. Higher prices for higher quality should be paid for high quality agricultural and sideline products that meet export criteria. As for certain small amounts of local and special products, foreign trade departments can sign purchase contracts directly with agricultural departments, with the agricultural departments organizing the production of export products and providing rewards to departments that create the most foreign exchange. This would motivate the initiative of all sides and enliven foreign trade as a whole.

Second, build base areas for high quality farm product exports. This is an effective measure for improving product quality and forming forceful products. Counties with suitable conditions for Mingguang green beans, for example, can be selected for construction of base areas. Agricultural production and scientific research departments should be closely coordinated for continual purification and rejuvenation and for selection of even better new varieties. They should select excellent cultivation measures and institute unified purchases by seed companies. After careful selection, they should be turned over to foreign trade departments for export, and the leftover green beans can be used for brewing top shelf Mingguang liquid liquor and as a superior raw material for vermicelli, with comprehensive utilization and multiple increases in value. All areas of China have places with unique high-quality farm and sideline products, and all of these should build export commodity base areas to integrate China's traditional advantages from being engaged in agriculture for thousands of years with new modern technologies, to foster advantages and avoid disadvantages and to produce high-quality farm and sideline products that foreign countries do not have or which have exceptionally high quality. Only in this manner will it be possible to export more, earn more foreign exchange and import more advanced technologies and industrial equipment to accelerate the pace of the four modernizations drive.

12539/12790

CSO: 4007/130

NATIONAL

READJUSTMENT OF RURAL ECONOMIC STRUCTURES VIEWED

Beijing JINGJI RIBAO in Chinese 7 Dec 85 p 2

[Article by Zhou Mingfu [0719 2494 3940]: "Good Momentum in Readjustment of Industrial Structures in Rural Areas"]

[Text] All areas of China carried out intensive second-stage rural reforms in 1985 and substantial readjustments have been made in the sectoral structures of industries in rural areas and the internal structures of each type of industry within each sector. Good momentum has appeared in multilayer comprehensive development in rural industries, and structures as a whole are tending toward greater rationality. In agriculture, there have been developments in grain production in the areas of product diversification and quality improvement. There has been an obvious improvement in the proportion of fine grains in the north and substantial increases in the area planted to high quality rice in the south, while there have been rather large increases compared with 1984 in oil crops, sugar, tobacco, jute, ambari, and other cash crops. There have been obvious improvements in the quality of cotton. In the areas of forestry, animal husbandry, sideline production and fishery, the afforested area in 1985 was the best year since the nation was founded, whether in terms of area or of survival rates. Total output of pork, beef and mutton is up by more than 15 percent over 1984. There is vigorous momentum in development of aquacultural breeding, and freshwater breeding is up by more than 20 percent over 1984.

Township and town enterprises have developed substantially. Many townships and villages have taken the route of comprehensive management of agriculture, commerce and industry, and employment problems have been solved for more than 60 million agricultural laborers across China. In total value of output in rural society, non-agricultural activities accounted for more than 40 percent. The development of secondary and tertiary industries in rural areas has led to greater vitality in the rural commodity economy.

At the same time, we also should take note of the fact that many problems, theoretical as well as practical, remain to be solved during readjustment of industrial structures in rural areas.

1. We Must Recognize the Long-Term Nature and Complexity of Readjustment of Industrial Structures in Rural Areas

There has been rather substantial readjustment of industrial structures in rural areas in China in the past few years, but no fundamental changes have occurred in the economic structure in which agriculture predominates, and the level of overall structures remains low. The rural economy is shifting from the self-sufficient and semi-self-sufficient economy to the commodity economy and the peasant masses are adapting gradually to and continually studying an orientation toward markets and engaging in commodity production. Complete arrangement of the relationships between the links of production, exchange, distribution and consumption have not been achieved. In dealing with this situation, leaders at all levels should strengthen macroeconomic management of readjustment of industrial structures in rural areas. There should be frequent study and evaluation of the macroeconomic results of industrial structures in rural areas. In implementation of reforms, there should be further utilization and improvement of the role of economic levers in conjunction with strengthened leadership to encourage and guide the peasants to produce according to the needs of state construction. On one hand, all commodity producers and producing units should strengthen their vitality, and on the other hand, there should be stronger macroeconomic control of the rural economy for greater coordination of development of the rural economy and the national economy.

## II. Consider the Fundamental Role of Agriculture

We have reversed the past situation of simple agriculture in recent years, but agriculture remains the foundation of the national economy and grain still should be placed in the primary position and given rational arrangements. Some areas now are focusing on industry and commerce while neglecting cropping and breeding. This is a superficial method. We should take note of the richness of resources in each area and the vast scope and enormous potential of cropping and breeding. Development of cropping and breeding is essential for providing a firm foundation for rural processing and service industries. Only then is it possible for the matchup of industrial sectors to conform to the principle of optimization.

## III. Provide Guidance for Development of Township and Town Enterprises According to Different Circumstances

China has a vast territory and major variations, so we cannot impose uniformity. The developmental directions of township and town enterprises in different types of regions should be characterized by the industrial structures and products of the local area, and industrial policies should be differentiated as well. On a national scale, they can be divided into four major categories. The first is economically developed regions. These refer mainly to the Chang Jiang and Zhu Jiang deltas, the southern Fujian delta, the two peninsulas in Shandong and eastern Liaoning, and counties in the suburbs of large cities. Township and town enterprises began developing rather early in these areas and are dominated mainly by high-profit machinery, electronics, chemical industry, light industry and textiles. Future emphasis should be shifted to exploitation of potential and transformation within enterprises with a focus on improvement and on development in the direction of specialization and precision to increase exports and foreign exchange earnings and take the road of "trade industry and agriculture."

The second category is regions at the middle level of economic development. This category refers mainly to the comparatively wealthy counties and suburbs of medium and small sized cities in each area. They account for about one-third of the total number of counties in China. Township and town enterprises in these areas only began to develop in the past few years. They are dominated by farm and sideline product processing, construction and construction materials, small scale hydroelectric power, transportation services and other industries, and there also are a few machinery and electrical industries. These regions should combine improvement and development. We should engage in more projects that absorb more labor power and obtain materials locally and reduce the number of enterprises that use large amounts of steel and consume large amounts of energy.

The third category is regions with a weak economic foundation where the peasants only recently have solved their food and clothing problems. The commodity economy is not very developed in these areas and industrial structures are rather simple. Township and town enterprises only have begun to develop and most are small household-run enterprises engaged in preliminary processing of farm and sideline products, coal extraction and mining, brick and tile making and so on. The number of enterprises is not small but their scale is. We should provide active assistance and guidance to them and make it possible for them to move out of local markets into national and international markets as production levels rise. The fourth category is economically backward regions where the food and clothing problems have not yet been solved. We should encourage them to be active in developing cropping, breeding, forestry and orchards, and we also should manage and use existing support capital well to set up several small enterprises, household enterprises or combined enterprises that require few investments and provide results quickly, and to develop production, improve living standards and provide material benefits for the masses. The categories outlined above were classified on a national scale. The situation in a particular province or county should be determined by seeking truth from facts and beginning with reality. Otherwise, guidance by categories is empty talk.

In addition, during readjustment of industrial structures, each area should conform to the laws of the commodity economy and focus on market information. Many areas now are concerned with readjustment of industrial structures and focusing on the resource advantages of the local areas while failing to deal with the fact that the products have no commodity advantages once resources are converted into products and failing to make horizontal comparisons. They have an inadequate understanding of market capacity and conditions, and information is neither sensitive nor accurate. We hope that leaders and related departments at all levels will strengthen information collection, analysis and transmission and that good services will be provided. When studying markets, they should be concerned not only with international markets and urban markets but also should pay attention to rural markets. Development of the commodity economy is accompanied by changes in peasant lifestyles and production patterns. Not only will there be abrupt rises in demand for household consumption goods, but the development of township and town enterprises will increase horizontal economic relationships and the market for means of production will grow on a daily basis. China's rural markets have an enormous capacity.

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NATIONAL

DEVELOPMENT OF OCEAN FISHERY URGED

Beijing JINGJI RIBAO in Chinese 4 Dec 85 p 2

[Article by Wu Wanfu [0702 8001 1133] and Mei Lianshan [2734 6647 1472] of the Aquaculture Science Academy Fishery Research Institute: "Accelerate the Development of Ocean Fishery"]

[Text] Since the 3d Plenum of the 11th CPC Central Committee, ocean fishery in China has undergone further development and the improvements in marine breeding have been especially rapid. There are, however, major differences compared with the same industry in foreign countries and with other industries in China, and its enormous potential still has not been exploited fully. The rate of development of ocean fishery is very unadapted to socialist construction in China. To accelerate development of ocean fishery in China, there are several issues that deserve adequate attention.

I. Coordinate Many Areas and Join Efforts To Develop Ocean Fishery

Great efforts to develop ocean fishery not only can provide even greater amounts of aquacultural products than at the present time but also can provide raw materials for production in other industries, and it is of substantial political and economic significance in arranging for labor employment, increasing taxes and foreign exchange for the state, and strengthening friendly cooperation between the Chinese people and the people of all nations of the world. This is especially true of development. The nations of the world now gradually are shifting their focus toward the oceans and we likewise should accelerate the establishment of our own ocean development strategy. It is true that ocean fishery has the characteristics of large one-time investments, high costs, and great danger, and that development of ocean fishery is related closely to agriculture, commerce, communications and transportation, finance and administration, economics and trade, foreign exchange and other aspects. This is especially true of ocean fishery in China, which remains rather backward in many areas. For this reason, during the development process, it should receive mutual coordination from many departments and disciplines as well as active assistance in the areas of investments, materials, technology, management and so on.

II. There Should Be a Spirit of Reform and Innovation

To be effective in development and utilization of ocean fishery resources and satisfy the continually growing needs of the people for aquacultural products,

we should strive to reform and renovate so as to open up a new situation in ocean fishery as quickly as possible.

The oceans contain enormous amounts of organisms. In marine breeding, for example, the average output of regular kelp is more than 1,200 kilograms per mu, more than 4,000 kilograms for mussels and more than 2,000 kilograms for scallops. If kelp is raised in the top layer of the water, scallops or mussels in the middle layer and sea cucumbers in the lower layer, this sort of multi-layer, three-dimensional breeding would mean that more food could be obtained from the ocean than from on land. China has more than 200 million mu of shallow sea and beaches within a depth contour of 15 meters. If marine breeding is carried out on 100 million mu, and if multilayer three dimensional breeding is carried out on one-tenth, or 10 million mu, the total amount of food that could be produced would be equivalent to that raised on several 100 million mu of land on the continent. Unfortunately, only 4 percent of the surface water or beaches are being used for raising at present, while 96 percent remains barren. We should take note of this enormous potential and awaken to the value of the seas and beaches. Similarly, the pace of reform in offshore fishery, outer ocean fishery, and distant ocean fishery should be accelerated. We not only should utilize our ocean waters that cover so much more area than our own cultivated land but also should partake of the publicly owned deep sea aquatic biological resources of the world and cooperate with other coastal nations for active development of international fishery and joint development of aquacultural resources in their exclusive economic zones.

### III. Rationally Develop and Utilize Oceanic Biological Resources

Because each oceanic biological resource has its own natural laws of growth and reproduction, we should respect these natural laws and carry out rational catching and sustained utilization. To manage offshore fishery resources well, we should employ economic, legal or administrative measures to make rational arrangements for the size of catches. At the same time, consideration should be given to protection of the marine environment, and we especially should prevent pollution of the mouths of rivers, bays and near-shore waters caused by development of coastal industry, petroleum exploration and development, and other things. Regions with the proper conditions should adopt artificial releases of fish fry, emplacement of artificial reefs and other measures to improve the environment of fishing grounds, "cultivate the sea and shepherd the oceans," and breed biological resources. In shallow sea and beach breeding and reproduction, we also should achieve a high degree of unification of benevolent ecological and economical cycles to achieve rational utilization.

### IV. Be Concerned with Protecting Freshness and Processing, Develop Comprehensive Utilization

We first of all should be concerned with the first line of freshness protection and processing at sea, which is the basis of guarantees for the freshness of aquacultural products and development of comprehensive utilization. This is especially true of outer sea and distant sea fishery, which now is in the process of rapid development. The long shipping distances and long time periods place greater demands on the increased freezing and frozen storage

capacities of fishing flotillas for true establishment of freezing, frozen storage and freezer chain shipping systems from the seas to the land and from production to processing. They should be adapted to the amount of output from fishing and breeding to establish or reinforce aquacultural freezing and frozen storage capabilities in producing regions, sales regions or aquacultural product distribution centers, and we should build up the corresponding frozen storage and low temperature truck teams and shipping flotillas. We also should strive to improve aquacultural product processing and comprehensive utilization capabilities. Ocean fishery should utilize the favorable conditions of coastal cities and towns, especially port cities opened to the outside, to make full use of advantages in famous, special and valuable aquacultural products. We should engage in development of tertiary industries and form two fan-shaped sales networks for foreign countries and for China to achieve true invigoration of aquacultural product circulation.

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## NATIONAL

### CHANGES IN PEASANT INCOME STRUCTURE NOTED

Beijing JINGJI DIAOCHA [ECONOMIC SURVEY] in Chinese No 4, Feb 85 pp 113-116

[Statistics by Tong Nong [4547 6593]: "Changes in the Structure of China's Peasant Income"]

[Text] According to a survey of 30,427 households in 600 counties in 28 provinces, municipalities, and autonomous regions, due to the 1983 comprehensive implementation of the output-related system of contracted responsibility focused primarily upon household management and the continual deregulation of rural economic policies, farm production is booming, diversified operations and commodity production have shown rapid development, farm income has increased rather extensively, and changes have occurred in the makeup of income. Many households are still at rather low income levels, however.

#### Average Per Capita Income Breaks 300-Yuan Mark

Of the 30,427 households surveyed, average per capita net income in 1983 was 309.77 yuan, up 39.66 yuan or 14.7 percent from the previous year and up 176.2 yuan—or 1.3-fold—from 1978. In the 5 years since the 3d Plenum of the 11th CPC Central Committee, the average annual income increase per capita has been 35.24 yuan, or an 18.3-percent annual increment. Of net income, net income from production (Footnote 1) (Net income from production: Net income from farming, forestry, animal husbandry, sidelines, fisheries, and rural industry, construction, shipping, commerce, and food and beverages) averaged 272.91 yuan, an increase of 35.76 yuan or 15.1 percent over the previous year. Net non-production income (Footnote 2) (Net non-production income: income from collective assets and publicly accumulated funds, income from non-production labor, cash and real assets sent from abroad or brought in, income from state assistance and subsidies, etc.) per capita was 36.86 yuan, up 3.9 yuan or 11.8 percent from the previous year. Percentage of production to total net income was up from 87.8 to 88.1, while non-production net income fell from 12.2 to 11.9 percent.

#### Primary Features of Peasant Income

1. Further Changes Occurred in the Makeup of Farm Income; Net Income From Household Industries Has Taken the Predominant Position: Total net income per capita

from household operations in 1983 was 245.54 yuan (comprising production income from collective assignments of 133.41 yuan, and from household sidelines of 112.13 yuan.) This was an increase of 57.99 yuan, or 30.9 percent. Income from centralized collective operations was 36.06 yuan, down 22.03 yuan, or 37.9 percent, from the previous year. Other credit income was 28.17 yuan, an increase of 3.7, or 15.1 percent, from the previous year.

Net income from households operations as a percentage of total net income went from 69.4 percent the previous year to 79.3 percent, while the percentage share for income from centralized collective operations fell from 21.5 to 11.6 percent. Income from credit remained stable at 9.1 percent.

2. Rate of Increase in Farm Income from Rural Industry, Construction, Shipping, Commerce, and Food and Beverages Surpassed That from Agriculture: As specialized and priority households and new joint entities develop, a segment of the rural labor force has left the soil without leaving the land to shift to non-farm sectors. Relevant statistics reveal that the size of this shifted labor force is now approximately 100 million. This is a salient feature of current rural economic developments. Of 1983 net farm income, that portion coming from agriculture (along with forestry, animal husbandry, sidelines, and fishing) was 221.7 yuan per capita—up 18.12 yuan, or 8.9 percent, over the previous year. That portion coming from rural industry, construction, shipping, commerce and food beverages was 51.14 yuan per capita, up 17.64 percent, which was 52.7 percent higher than the previous rate. The proportion of pure income from agriculture fell from 75.4 to 71.6 percent, while that proportion coming from rural industry, construction, shipping, commerce, and food and beverages rose from 12.4 to 16.5 percent. The seven-member household of Cui Zhuo in the 13th brigade of Xiaguan Camp in Qian'an County of Hebei was a disadvantaged household in 1981, with a per capita income of only 72 yuan. In 1982, they opened a snack shop in the collective and from this source alone achieved a per capita income of 296 yuan. In 1983, that figure rose to 887 yuan. The four-member household of Xia Shigen of the third township of Tanshu ridge in Hebei's Wuchang County, utilizing one hand-held tractor, entered service contracts with 21 farm households in their village, from which they achieved pure income per capita of 186 yuan. This one item comprised 42.5 percent of their total net income that year.

3. Production Expenses Fell, and Economic Returns Rose: The household contract linked to the output responsibility system has mobilized farmer enthusiasm to economize in production outlays. The net income from household operations generated by every 100 yuan in expenses reached 303.38 yuan in 1983, up from 277.64 the previous year. This amounted to an increase of 25.74 yuan, or 9.3 percent. The proportion of expenses to gross household operating income fell from 26.5 percent the previous year to 24.8 percent.

4. Commodity Production Developed, and the Supply of Commodities Increased: The 1983 grain commodity rate reached 24.4 percent, while the rates for cash crops, livestock, and aquatic products were all above 50 percent.

1983 Production and Sales Figures for Major Farm and Sideline Products from Household Operations

	Unit	Output	Sales	Sales as Percentage of Output (%)
Grain	jin/person	1,008.78	245.79	24.4
Oils	"	26.33	17.10	64.9
Sugars	"	79.06	63.26	80.0
Tobacco	"	3.14	2.96	86.0
Fruits	"	18.03	12.00	66.6
Pork	"	197.09	147.76	75.0
Mutton	jin/household	10.30	6.74	65.4
Poultry	per household	6.48	3.67	57.1
Eggs	jin/household	33.04	18.25	55.2
Fish	"	9.68	7.65	79.0

The development of rural specialized and priority households has spurred improvements in the rural commodity rate as a whole. Surveys by the Tianjin Bureau of Statistics show that the grain commodity rate for the "two households" is 33.1 percent, which is 17.7 percent higher than the grain commodity rate for the city as a whole. For vegetables, the figures are 94.9 percent, or 30 percent higher; for pork, 88.2 percent, or 38.5 percent higher; and for poultry and eggs 83.1 percent, or 36.1 percent higher.

Because supplies of commodities improved in 1983, the average per capita cash income from sales of farm and sideline products reached 119.11 yuan, an increase of 29.96 yuan, or 33.6 percent. The proportion of this cash income to total cash income (not including income from savings deposits) rose from 48.3 to 55.5 percent.

5. The Number of High-Income Households Continues To Rise While the Number of Low-Income Households Decreases; Regional Discrepancies Shrink: According to the survey, the average per capita net income by groupings showed that households above 500 yuan rose from 6.7 to 11.9 percent; those from 400 to 500 rose from 8.7 to 11.6 percent; those from 300 to 400 rose from 20.8 to 22.9 percent; those from 200 to 300 yuan fell from 37 to 32.9 percent; those from 150 to 200 yuan fell from 16 to 13.1 percent; and those below 150 yuan fell from 10.8 to 7.6 percent.

With this widespread improvement in farm income as a basis, regional discrepancies also continued to shrink. For example, the Shanxi Statistics Bureau surveyed 1,100 central and 430 mountain households which showed an average per capita net income of 237.7 yuan overall--up 18.8 percent from the previous year. Of the hill country farm households, 280 had net per capita income of 293 yuan--up 41.5 percent; 390 of the flatland farm households had average net incomes of 303.1 yuan--up 13.7 percent. The rate of income increase in the mountain and hill country households was higher than that in the flatlands. A Shenyang survey of 300 farm households scattered across four outlying areas of two counties showed that in 1983 the average per capita net income was 540.2 yuan--up 21.5 percent. The average income for the two counties as a whole was 485.19 yuan--up 50.4 percent.

### Disadvantaged Households with Low Incomes Still a Considerable Proportion

In 1983, households surveyed which stood below 150 yuan numbered 7.6 percent. Ten provinces and regions with higher proportions included Honan (9.5 percent), Hebei (9.9 percent), Guangxi (10.6 percent), Ningxia (12.1 percent), Shaanxi (12.8 percent), Shanxi (14.5 percent), Nei Monggol (20.4 percent), Qinghai (20.7 percent), Guizhou (22.5 percent), and Gansu (27.7 percent).

Comparing the seacoast to the interior, households in the interior below 150 yuan of net income per capita numbered 10.1 percent of the survey, while the seacoast figure was 3.7 percent. Most disadvantaged low-income households were in peripheral mountain areas. A survey by the Zhejiang Statistics Bureau of 1,020 farm households revealed 83 below the 200-yuan mark. Most were in such remote mountainous and semi-mountainous regions as Yongjia, Pingyang, Xianhu, and Puyun. When comparing these disadvantaged households with affluent ones above 1,000 yuan per capita, the primary causes of poverty are: (1) Numerous household members and burdensome labor responsibilities, with the average household having 5.7 persons for an average of 2.5 per worker. This was 2 persons per worker higher than for the affluent households, where the figure stood at 1.3 persons per worker. (2) Production brigades within which disadvantaged households were situated had no income from township or brigade enterprise, whereas in the case of affluent households, the average income per capita from such enterprises amounted to 164.7 yuan. (3) Little diversification of operations. Income per capita for disadvantaged households engaged in such non-farm production sectors as industry, construction, shipping, commerce, or food and beverages was a mere 19.8 yuan--comprising 16.4 percent of total income. For the affluent households the figure comprised 40.2 percent of the total.

Table 1. Net Farm Income

	Average Income (yuan)		Composition (%)		Comparative Growth 1982-1983	
	1983	1982	1983	1982	Absolute	%
Annual net income	309.77	270.11	100.0	100.0	39.66	14.7
1. Production	272.91	237.15	88.1	87.8	35.76	15.1
(1) Farm	221.77	203.65	71.6	75.4	18.12	8.9
(2) Non-farm	51.14	33.50	16.5	12.4	17.64	52.7
2. Non-production	36.86	32.96	11.9	12.2	3.90	11.8

Table 2. Net Farm Income

	Average Income (yuan)		Composition (%)		Comparative Growth 1982-1983	
	1983	1982	1983	1982	Absolute	%
Annual net income	309.77	270.11	100.0	100.0	39.66	14.7
1. Centralized/ Collective	36.06	58.09	11.6	21.5	-22.03	-37.9
2. Household	245.54	187.55	79.3	69.4	57.99	30.9
3. Other non-credit	28.17	24.47	9.1	9.1	3.70	15.1

Table 3. Net Farm Income

	Average Income (yuan)		Composition (%)		Comparative Growth 1982-1983	
	1983	1982	1983	1982	Absolute	%
Annual net income from:	309.77	270.11	100.0	100.0	39.66	14.7
(I) Collective	169.47	142.84	54.7	52.9	26.63	18.6
1. Centralized Distribution	149.86	126.95	48.4	47.0	22.91	18.0
2. Township Brigade Enterprise	11.92	8.97	3.8	3.3	2.95	32.9
3. Welfare	0.74	0.43	0.2	0.2	0.31	72.1
4. Collective Incentives	1.54	1.43	0.5	0.5	0.11	7.7
5. Miscellaneous	5.41	5.06	1.8	1.9	0.35	6.9
(II) Household	112.13	102.80	36.2	38.0	9.33	9.1
1. Farming/Forestry	34.88	32.08	11.3	11.9	2.80	8.7
2. Livestock	38.81	35.14	12.5	13.0	3.67	10.4
3. Fishery	0.72	0.43	0.2	0.1	0.29	67.4
4. Cottage Industries	5.71	4.43	1.8	1.6	1.28	28.9
5. Hunting/Gathering	6.16	8.00	2.0	3.0	-1.84	-23.0
6. Construction/Shipping/Production Services	20.01	18.63	6.5	6.9	1.38	7.4
7. Commerce/Food-Beverage Service	3.08	2.52	1.0	0.9	0.56	22.2
8. Miscellaneous	2.76	15.7[slc]	0.9	0.6	1.19	75.8
(III) Miscellaneous Noncredit	28.17	24.47	9.1	9.1	3.70	15.1
1. From abroad	4.62	4.60	1.5	1.7	0.02	0.4
2. Wages	5.89	4.59	1.9	1.7	1.30	28.3
3. State Disbursements	2.61	2.59	0.9	1.0	0.02	0.8
4. Gifts (Relatives/Friends)	6.57	5.53	2.1	2.0	1.04	18.8
5. Sales of Goods	3.77	2.68	1.2	1.0	1.09	40.7
6. Miscellaneous	4.71	4.48	1.5	1.7	0.23	5.1

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NATIONAL

ROLE OF SPECIALIZED HOUSEHOLDS IN ECONOMIC GROWTH OUTLINED

Beijing ZHANYEHU JINGYING BAO in Chinese 9 Nov 85 p 5

[Article by Wang Tianjian [3769 1131 0494]: "Role of Specialized Households in Current Rural Economic Growth"]

[Text] According to the unified 1984 standard statistics for rural specialized households reissued by the National Statistics Bureau, in 1984 there were more than 4 million specialized households, 2.3 percent of all rural households. This figure cannot completely reflect the role of specialized households in rural economic growth; below we shall merely clarify several aspects of the situations understood by us:

I. In Order To Provide More Commodities to Society, They Should Become an Important Component Which Cannot Be Ignored in the Rural Economy

Specialized households are those which manage household enterprises targeted at commodity production. In 1984, all the rural specialized households provided society with a total of 8,133,000,000 yuan worth of commodities, including grain, vegetables, meat, eggs, milk, and various rural industrial products, thus enriching urban and rural markets. In their own business activities, specialized households pay attention to integrating their real conditions and enlarging their scale, hoping to attain even better economic results. Business activities on a somewhat larger scale enable them to sell more commodities. In Dalian City, for example, of the more than 90,000 specialized households in the city, in 1984 there were 3,300 households which sold to the state more than 10,000 jin of grain, 4,806 households which sold 10,000 jin of fruit, and 74 households which sold more than 10,000 jin of pork.

Specialized households can provide rather more commodities to society; besides their being on a larger scale than most farm households, another factor is that the production-management activities in which they engage are at a rather high degree of specialization, therefore their costs are lower and the commodity rate is higher. National statistics show that the specialty income in specialized households is 14.87 billion yuan, 75.6 percent of the entire household business income in specialized households. According to comprehensive figures for farming, forestry, animal husbandry, sideline production, and fisheries, specialized households account for 68.5 percent of the commodity rate in these five areas. On the average, the per capita income

from sale of products is 620.4 yuan, 240 percent above the average level for rural households.

In their business activities, in accordance with national regulations specialized households pay taxes and management fees, accumulating some funds for the state. The survey conducted in Fuyang Prefecture in Anhui revealed that there were 16 specialized large households which in 1 year gave the state 500,000 yuan in taxes and fees.

## II. Actively Opening Up New Areas of Production Has Promoted Restructuring of Farming and Forestry Production

Specialized households are the best among peasants, actively developing production in a multilevel production structure:

1. In crop production many specialized households are focusing their time on developing cash crops. Nationwide there are 1.32 million households specializing in crops, with 600,000 grain-crop specialty households and 560,000 cash-crop specialty households, almost a 1:1 ratio. This ratio within specialized households is very much higher than the national rural crop ratio of grain households and cash-crop households. Agriculture in China's countryside is principally of the traditional kind, focusing on crop production. The overwhelming majority of the 800 million peasants labor in the fields. The change in the ratio of grain to cash crops among crop producers is of great significance.

2. In agriculture as a whole, there are even more specialized households beginning to emphasize the search for growth in forestry, animal husbandry, sideline production and fisheries. In Heilongjiang's development and use of the "five barren's" (barren mountains, water channels, beaches, land, and water), crop specialty households have opened 229,298 mu of wasteland, an average of 31 mu per household. Livestock specialty households have opened up and used 275,777 mu of barren grasslands, an average of 277 mu per household. Forestry specialty households have used 454,695 mu of barren mountains for reforestation, an average of 88 mu per household. Fishery specialty households have opened up 84,755 mu of barren bodies of water for raising fish, an average of 32 mu per household. According to statistics, of all specialized households in the nation, 31.09 percent are in crops, 2.51 percent are in forestry, 11.18 percent are in animal husbandry 3.06 percent are in fisheries, and 16.02 percent are in rural industry and sideline production. These figures illustrate that the ratio of the five industries is not the most ideal, but they do show that in the few short years of development of specialized households, in rural production "land, water, and air" production have grown together, the whole situation has developed, it is off to a vibrant start, the speed has been fast, and it is a strong driving force. Propelled by the specialized households and following the division of labor in the areas of agriculture and the deepening degree of labor division in society, forestry, animal husbandry, sideline production, and fisheries in many places are gradually developing from being subordinate to crop cultivation to being industries with the ability for independent existence and achieving results on a considerable scale.

3. Develop rural production on many levels. Development of secondary and tertiary industries in the agricultural economy is one of the striking changes in China's rural production structure. On the one hand, because China has many people and little farmland, there is a surplus of labor; on the other hand, because the rural service industry has always been very weak, it has never come close to meeting the needs of rural economic growth. Therefore, the shift of a portion of the peasantry from the soil of working in industry and commerce benefits the rationalization of the rural production structure. The performance of specialized households in this regard certainly proves that they are the leaders and models in the growth of secondary and tertiary production. Of all the 4,256,000 specialized households, 891,000 households are engaged in secondary production and 1,329,000 households are engaged in tertiary production; the two together account for 52.2 percent of specialized households, exceeding the total number of specialized households engaged in primary production. In addition, the labor input and income also exceed those of specialized households engaged in primary production. Furthermore, the restructuring of rural production has caused the specialized production in some areas to reveal a tendency toward regional specialization, with the appearance of many specialized villages and specialized small towns. The further growth of specialized small towns is driving forward the formation in the countryside of specialized production and marketing commodity markets. Markets can accommodate large volumes of agricultural products and byproducts, assembling and distributing various production materials and raw materials and attracting from near and far city and country people who exchange local information. As agriculture, industry, and commerce become one entity and supply, production, and marketing became one system, an organically integrated economic network is formed, displaying the prospects for growth awaiting the rural production forces, which are bursting with vitality.

### III. There Is Profound Sociological Significance

The restructuring of rural production calls for corresponding changes in the peasants' knowledge structure; in the course of developing the rural economy, specialized households have themselves developed. This is just as true in the growth of the five industries in agriculture as a whole, where a larger number of specialized households have engaged in feed, food products, processing, weaving and embroidery, operating boats and vehicles, building, commerce, food and drink, and service. They have many modern factors working for them that traditional peasants lack, and so it is entirely correct to call them a new kind of peasant. In order to achieve higher labor productivity and economic results, they have arduously studied the technology and knowledge that they so urgently need. They study for practical purposes, and are always very willing to accept new technology and exchange new experiences. Wen Jiayu [5113 1367 3768] of Pingyang Township, Jidong County, Heilongjiang Province, is in a household specializing in production of edible fungi. In order to run his business well, he seriously studied specialized works, paying out of his own pocket to attend academic conferences in Beijing. He spent large sums enlarging a 140-square-meter workplace, installing a biological microscope, a high-pressure bacteria-killing device, a constant-temperature chamber, a refrigerator, and other devices. He has successfully produced three grades of black mu'er spores, and such fungi as pinggu [1627 5466] and huagu [3323 5466]. He has published four papers, received the second degree provincial

award for outstanding scientific research, and has been recruited as a member of the provincial edible fungus society.

In addition, many specialized households, who are themselves scientific and technical models, enthusiastically spread their successful practices and technical methods among the masses surrounding them; this both popularizes science and technology, enabling others to find the road to prosperity, and brings about changes in the backward production and management methods followed for many years. In Wanbao Township, Angu County, Jilin Province, Sun Xiquan [1327 1585 0356] has been successful the past 2 years in growing ginseng, with a net income of 67,000 yen. He actively shares ginseng-growing technology with his fellow villagers, clearing out his house to hold 12-session technical classes, enabling most of the villagers to understand ginseng-growing technology. This village has also developed into a ginseng specialty village.

Of course, there are currently some problems in the growth of specialized households, such as imbalance in regional development, uneven development of various industries, slow exchange of information, and backward technology; concerned parties should pay great attention to these. The CPC Central Committee has stated in regard to the Seventh 5-Year Plan that we should "further restructure rural production and gradually make the agricultural economy more specialized, commodity-oriented and modernized, thus better satisfying the needs of society." Experience has proven that, in rural economic growth, continuing to support and develop specialized households is an important link in accelerating the pace of rural development and realizing the relevant goals from the Central Committee.

12919/12913

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NATIONAL

SECOND PHASE OF NORTHERN GREENING TO BEGIN

OWO40758 Beijing XINHUA in English 0748 GMT 4 Mar 86

[Text] Yinchuan, 4 March (XINHUA)--A massive drive will begin later this year to build the second phase of the green "great wall" in Northern China in a bid to further control soil erosion and halt desert encroachment there.

Li Jianshu, director of the bureau in charge of the shelterbelt construction, said today that this phase, to be completed in ten years, will involve the afforestation of 6.3 million hectares of 466 counties in 11 provinces, autonomous regions and Beijing municipality.

With the first phase completed last year, the green wall now extends 7,000 km from Heilongjiang province in Northeast China, traverses the loess highlands, skirts the deserts and plateau of Qinghai province, and ends in the Xinjiang Uygur Autonomous Region.

Trees and bushes have been planted on 6.05 million hectares of barren land in 396 counties since the shelter forest project started in 1978. As a result, one third, or eight million hectares, of the farmland in the area is now protected by shelterbelts, which yield an annual return worth 1.2 billion yuan.

"As the first step, we'll plant trees and bushes on 3.33 million hectares during the Seventh 5-Year Plan, which started this year," Li said. Moreover, another 1.66 million hectares of land will be turned into woods or pastures through air seeding by 1995. "By then, forests will cover 7.7 percent of the land in Northern China, compared with 5.9 percent last year," Li told XINHUA.

This means that a third of the loess highlands will be freed of soil erosion, and shelterbelts will divide 17.3 million hectares of farmland into checkerboard patterns.

"We'll raise funds for afforestation mainly through governments and peasants, who are entitled to enjoy benefits from the trees they plant," Li said. "Of course the central government will also allocate funds, extend loans with discounted interest rates, and provide subsidies for saplings and technical guidance to peasants," he added.

Some counties suffering the most serious soil erosion will be singled out to receive possible loans for tree planting from the United Nations Food and Agriculture Organization and the World Bank.

NATIONAL

CONCERNS IN DEVELOPING HIGH-QUALITY RICE OUTLINED

Beijing NONGYE JISHU JINGJI [ECONOMICS FOR AGRICULTURAL TECHNOLOGY] in Chinese No 11, Nov 85 pp 10-12

[Article by Chen Jiansan [7115 1696 0005], Zheng Xuejun [6774 1331 6511], Cao Wanjun [2580 1238 0689], and Yin Lin [1438 2651], Crop Germplasm Research Institute, Chinese Academy of Agricultural Sciences: "A Few Problems of Concern in the Development of High-Quality Rice"]

[Text] China is one of the world's richest rice-growing nations. Here, paddy holds a predominant position in grain production. In recent years our grain production has expanded tremendously. In 1984 total output reached 814.24 billion jin, up 99.33 billion jin over 1978, for an average annual increase of 2.5 percent during those 6 years. How we maintain this fortunate situation and, given continued steady increases in grain yield and guaranteed regional self-sufficiency in grain production, how we strive to develop high-quality rice, are questions of the utmost significance in promoting development of the commodity economy.

In view of our current situation and that of the international market, not only is it possible for us to work to develop high-quality rice while still guaranteeing regional self-sufficiency in grain production, but there are broad prospects for doing so. For one thing, statistics show that we have a total of about 500 million mu of cultivated paddy land in China, of which approximately 174 million mu, or 35 percent, produces low-quality rice. The "grain-selling difficulties" that appeared in the south in 1985 were primarily due to the unsalable quality of some of the rice from this section of paddy area. In addition, in 1987 the state purchased 62 billion jin of rice nationwide, of which only 7.5 billion jin, or 12 percent of the total, was the top-selling polished round-grained nonglutinous rice. Based on these calculations, city dwellers and townspeople nationwide have an average of only 3 jin of high-quality rice per capita per month. Deciding how to suit measures to local conditions and switch from low-quality rice to high-quality rice on some of our paddy land will help us resolve the contradictory problems of state overstocks and "grain-selling difficulties" among rice farmers due to low-quality rice. In addition, it will simultaneously provide some increase in high-quality rice for city dwellers and townspeople.

A second fact that points to good prospects for high-quality rice production is that the amount of land area currently growing high-quality rice is only 22 percent of all cultivated paddy area nationwide. At the same time, our capacity for competition in the international market is not up to par. For example, the quantity of husked rice China now exports annually accounts for only about 10 percent of the international market. In Hong Kong, polished long-grained nonglutinous rice grown in Australia sells for HK\$4,597 per ton and that grown in Thailand sells for HK\$2,650 to HK\$2,738 per ton, whereas that grown here in Guangzhou sells for only HK\$2,395 per ton. In keeping with the spirit of the National Symposium on High-Quality Rice Production, we call for production of special varieties of rice and high-quality rice on 60 percent of the total paddy area, or 3 billion mu, by the year 1990. If we achieve this goal it will play a very important role in resolving the shortage of high-quality rice on the domestic market and improving our capacity for competition on the international market.

In view of the actual circumstances facing us in various localities, in order to develop high-quality rice while yet guaranteeing regional self-sufficiency in grain production we must take care to resolve the following problems:

1. We Must Truly Achieve Grain Self-Sufficiency and Strive To Breed and Popularize High-Quality, High-Yield Varieties of Rice

China is a huge nation of 1 billion people that relies for the most part on grain self-sufficiency, so grain production remains a major problem. In particular, populous regions where there is little land have long been dependent on outside supplies of grain. This is rather hard on all aspects of communications and transportation. Consequently, we should strive to achieve regional self-sufficiency in grain production and make great efforts to breed and popularize high-quality, high-yield varieties. A look at the current state of high-quality paddy varieties popularized in various Chinese localities reveals that Special Grade-1 Rice generally weighs 13.5 to 14.5 grams per thousand grains, Special Grade-2 Rice weighs 14.5 to 16.2 grams, and Special Grade-3 Rice weighs 16.3 to 18.5 grams. Therefore, the yields per unit of area are universally too low, generally only around 300 to 400 jin. If the thousand-grain weight was improved to 20 to 25 grams, the unit yields could then rise to 500 to 600 jin. In addition, the famous and rare varieties now used in China are mostly traditional peasant varieties that are usually low in resistance and particularly sensitive to hoja blanca and rice blast. This is another major reason for low unit yields in high-quality paddy. Consequently, we must strive to breed and popularize improved varieties that have relatively high thousand-grain weights and strong resistance properties.

Given the existence of high-quality, high-yield improved varieties, if a particular locality is still not self-sufficient or cannot achieve regional self-sufficiency, then it is to be feared they will have difficulty developing high-quality paddy. From a national perspective, in developing high-quality rice we should first stress expansion of medium-quality rice that has a unit yield of 700 to 1,000 jin. Then, as appropriate, we should expand high-quality rice that has a unit yield of 500 to 600 jin and reserve a certain area for special varieties of rice. This is because medium-grade rice is not

only high in unit yield, it also commands a vast domestic market, whereas special varieties of rice are primarily dependent on sales abroad.

As for breeding and popularizing improved varieties that have high thousand-grain weights and strong resistance properties, if only the work keeps pace this will not be hard to handle. For example, we crossed a sterile line of high-quality polished round-grained nonglutinous rice weighing about 25 grams per thousand grains with strain IR<sub>24</sub>, which weighed 24 grams per thousand grains. In stalk type the progeny, called "84-9001," resembled polished round-grained nonglutinous rice, and in grain type it resembled long-grained nonglutinous rice. It weighed 20 to 23 grams per thousand grains, produced a unit yield of 600 to 700 jin per mu, and the grains had neither a white endosperm nor a white ventral endosperm. Obviously, it is completely within the realm of possibility to improve the thousand-grain weight and unit yield of high-quality paddy. To develop high-quality paddy methodically, it is essential to take vigorous action to establish a base for breeding improved varieties of high-quality rice. This is the foundation upon which to expand high-quality rice. For any further expansion to occur there should be a unified, national requirement for technical standards. For example, we should have suitable standards for physical properties, such as white ventral endosperms, white endosperms, and the ratio of vitreousness; chemical components, such as the amounts of amylose, amylopectin, protein, lysine, and fat; and agronomic character, such as plant height, thousand-grain weight, resistance, degree of regularity, and palatability. Generally speaking, we can call rice high-quality when it is "not sticky when soft, not hard when cold, delicate in fragrance, and palatable." There is no doubt that determining the above technical standards is very important in evaluating high-quality rice.

## 2. We Must Take Care To Suit Measures to Local Conditions and Pay Close Attention to Environmental Effects

High or low quality in paddy varieties is controlled by major [zhuxiao] [0031 2400] genes and minor [weixiao 1792 2400] genes, which have not only a hereditary effect, but also an environmental effect. Generally speaking, high-quality rice has superior qualities, just as do such celebrated varieties as Tianjin Shiao Chan Rice, Beijing Jingxi Rice, and Zhengzhou Fenghuangtai Rice. However, a single variety will display different characteristics under different ecological conditions. For example, Shuiyuan Rice No 258 displays high quality in Lu'an Anhui, but in Hangzhou it displays poor quality. From this we can see that the production of high-quality rice is closely tied to ecological and environmental conditions. Therefore, in addition to striving to select high-quality, stable new varieties, rice-breeding households should take care to suit production measures to local conditions and avoid blindly introducing and popularizing improved varieties. Based on natural conditions, sunlight, temperature, water sources, soil, and farm production conditions in China, the Liao He-Huai He and Huang He-Huai He regions should become the primary commodity grain production bases for high-quality rice in China. Such places as Nanyang, Xinyang and Zhumadian prefectures in Henan; Lu'an and Fuyang prefectures in Anhui; Xiangyang and Huanggang prefectures in Hubei; and the Xuzhou-Huaiyin region of Jiangsu each can adopt water transport in well-watered areas and overland transport in dry areas, striving to develop early,

midseason and late rice; wheat stubble paddy; and dryland rice cultivation and management. There are particularly bright prospects for expanding hybrid round-grained nonglutinous rice in these areas.

### 3. High Quality Should Command a High Price, and We Must Improve Processing Technology

At present, there is no correspondingly high price for high quality in Chinese rice procurement. More often than not high quality does not mean a high price, and even when the price is raised it still cannot produce the kind of income that should be earned from cultivating high-quality rice. This dampens any enthusiasm rice farmers have for cultivating high-quality rice. Consequently, we suggest that pricing departments issue clear stipulations on this point. The primary basis for setting prices for high-quality rice should be similarity of production conditions, so as to be roughly commensurate with production income from ordinary husked rice. For example, if we can produce 500 to 700 jin per mu of medium-grade rice, figured at 3 jiao per jin the output value would be 150 to 225 yuan per mu. If we can produce only 350 to 500 jin per mu of high-quality rice, and we still calculate the value at 3 jiao per jin, the output value would be only 105 to 150 yuan. This is obviously irrational. To ensure that the per-mu output values are roughly commensurate we must raise the price of high-quality rice by more than 50 percent.

In addition, many problems remain in our current technology for processing high-quality rice. For example, much of the high-quality rice is long grained, whereas most processing machines are only suited to elliptical rice grains. If the long-grained rice is inserted the rice grains cannot exit whole. Thus, we must resolve technological problems with rice-husking machinery. To develop high-quality rice production is actually to develop commodity paddy production. We can achieve the optimum economic results only if we proceed under the guidance of the state plan. To expand the production of high-quality rice we should effect coordination of production, processing, and management and organize all manner of economic associations for scientific research, production, processing, and quality control. This will ensure that China moves into commercial rice production as quickly as possible.

12510

CSO: 4007/180

NATIONAL

CORN PRODUCTION PROSPECTS ANALYZED

Shenyang NONGYE JINGJI [AGRICULTURAL ECONOMICS] in Chinese No 6, 13 Dec 85  
pp 17-19

[Article by Lu Fande [0712 4907 1795], Liaoning Department of Agriculture and Animal Husbandry: "Prospects for Corn Production"]

[Excerpt] II. There Is No Corn Surplus in China

Corn has been grown in China for only 400 years. Compared with other ancient crops such as rice, wheat, millet, and sorghum, which have a long history of cultivation in China, corn has been grown for a fairly short time. However, it has developed with a rapidity rarely seen among other crops. In the 1930's corn was cultivated on no more than 70 million mu of land, and by the 1940's it reached 85 million mu. By 1952 corn cultivation nationwide had expanded to nearly 188 million mu, had a unit yield of 179 jin and a gross yield of 33.69 billion jin, and accounted for 10.5 percent of gross national grain yield (327.85 billion jin) in that year. By 1983 corn cultivation had spread to 282 million mu, produced a unit yield of 483 jin, reached a gross output of 123.64 billion jin, and accounted for 15.8 percent of that year's gross national grain output (774.5 billion jin). In the 30-plus years since the PRC was founded corn production area has increased more than 50 percent, unit yield has improved more than 170 percent, and gross yield has risen over 260 percent. Now, both in cultivated area and gross yield, China has become the world's second largest corn-producing nation.

On the domestic front corn stands in third place, behind rice and wheat. In terms of area under cultivation it has become China's fastest growing grain crop, and in terms of unit yield it is her most improved crop. "Corn-selling difficulties" have appeared in some provinces, particularly in 1983 and 1984, but an analysis of the nationwide situation certainly shows no corn surplus in China: 1) From the standpoint of the amount of corn per capita (averaged based on 1983 corn yield and using the 1982 population), China still falls below the average world level (78 kg), coming in at only 67 kg per capita. By contrast, there are 480.9 kg of corn per capita in the United States, 188.8 kg in France, 336.6 kg in Brazil, 120.9 kg in Italy, 476.8 kg in Yugoslavia, and 517 kg in Romania. The Soviet Union and Japan are nations that have fairly small amounts of corn per capita, and they arrange each year for volume imports to satisfy their fodder production needs. 2) From the standpoint of

the average state of grain trading nationwide between 1981 and 1983, all the provinces in the north, east, south, southwest and northwest of China were short of corn, and the shortfall reached 3.86 billion jin. Reports of abundant corn came mostly from 3 provinces in the northeast, where 8.42 billion jin were reported in all. The surplus after balancing the two statistics is a mere 4.56 billion jin. However, there are circumstances here that call for closer scrutiny: the grain yields in some localities were not honest. Some specialized households storing grain for the state reported rather large quantities, but when the grain was actually to be allocated they did not have it. If we figure that 10 percent of the reports were unreliable figures, then we can lower the allocation by 1.2 billion jin, leaving only 3.36 billion jin of surplus. The majority of this cannot be used for fodder; because policies make no provision for it, it is not worthwhile to use corn to feed swine. If prices are cut to sell the corn, nobody will compensate for the loss, and if it is marketed at the original price nobody will want to buy it. Consequently, it has come about that those who wish to buy corn cannot buy it and those who wish to sell corn cannot sell it. As for the foreign trade angle, that little so-called excess of grain is not even enough to export to Japan; if the international market was really opened up our corn would obviously be grossly inadequate. According to news reports, in 1985 China's foreign trade volume in corn was nearly 4.75 million tons.

Nowadays the livestock industry accounts for only about 14 percent of the gross value of agricultural production [GVAO] in China, whereas in nations with fairly well developed livestock industries it usually represents 40 to 50 percent. The discrepancy between these two figures is too great. If we plan according to projections, in the year 2000 the output value in China's livestock industry will rise to 30 percent of GVAO. At that time we will need approximately 300 billion jin of fodder grain per year, but we will only be able to produce 200 billion jin of corn. Even if we use all of it to develop the livestock industry we will still be far short of what we need.

There is one more example we can use for reference: some people divide the 24 years prior to 1983 in the Soviet Union into 2 segments of 12 years each. In the former 12 years there were 1,200 jin of grain per capita and it was declared that there was a grain surplus that could be exported. In the latter 12 years there were 1,600 jin of grain per capita, 400 jin more for each person than in the previous 12 years. Nevertheless, grain was felt to be insufficient and nearly 20 million tons of grain (primarily corn) was imported each year, making 200 jin of imported grain per capita. Under this scenario China is now in the same stage as was the Soviet Union in the former 12-year period. Moreover, the amount of grain per capita here (about 800 jin) is far lower than that in the Soviet Union at that time, primarily because our livestock industry is undeveloped and grain conversion has not kept pace.

To sum up, to say now that we have an abundance of corn would be a sham. This kind of excess only reflects the undeveloped state of China's grain processing and livestock industries and the continued low standard of living among her people. In the past few years tentative plans have been proposed in some provinces to cut back on corn and expand cash crops. This course quickly brought natural penalties, and those provinces are again seeking to develop corn production.

### III. Corn Is a Superior Crop in Liaoning

Corn has been cultivated in Liaoning for just over 300 years. According to textual research, corn cultivation was recorded there in the 21st year of the reign of Kang Xi in the Qing dynasty. As of 1949, 10.26 million mu of land in Liaoning was cultivated in corn, accounting for 17.7 percent of the total grain crop area. This was less than the amount of land devoted to either sorghum or millet, thus placing corn third in terms of area sown provincewide. The total corn yield was 1.73 billion jin, or 23.8 percent of total grain yield; corn placed second, yielding less than sorghum and more than millet. Because corn has a high yield and a broad range of uses, in the 30 years since the founding of the PRC the area sown, the yield per unit of area, and the gross yield have all grown rapidly. As of 1983 the area of land sown in corn reached 18.29 million mu, accounting for 44 percent of the sown grain cropland in that year. The gross corn yield was 14.74 million jin, or 52 percent of gross grain yield, placing first among all sorts of crops. Corn yielded an average of 805 jin per mu, 15.2 percent higher than the average grain yield of 683 jin per mu, and was second only to paddy. Liaoning corn yield was higher than average international and national unit yield levels. This reflects the fact that corn is truly a crop with major advantages in Liaoning. These advantages are primarily manifested as follows:

1. Natural Advantages: Natural climatic conditions over the majority of Liaoning are suited to growing corn. In particular, the regions of Liaoning that have the most favorable overall natural climatic conditions are in the warm, semi-humid central plains region, including southwest Shenyang; southern Xinmin; Liaozhong; all of Tai'an; Liaoyang; Dengta; Anshan; most northern towns of Haicheng; eastern Heishan; and some parts of Yingkou, Panshan, and Dawa. The heat, moisture, and illumination conditions are adequate, the frost-free period is lengthy, the soil is fertile, and it is perfect for growing corn. In the temperate, semi-humid undulating plains region of northern Liaoning--that is, in Shenyang, Tieling, most of Kaiyuan, southeast Kangping, Faku, and all of Changtu--although heat conditions are slightly deficient, moisture and illumination are adequate, the soil is fertile, and the requirements for corn growth and development are fairly well met. From a provincewide perspective, natural climatic conditions in the corn-producing area most basically approximate those in the U.S. corn belt: identical temperature changes from April through September, identical patterns of precipitation, and identical temperature and moisture requirements at each stage of corn growth. Northern Liaoning is comparable to Jilin and Heilongjiang: the temperature is a little too high and the frost-free period is rather long. Southern Liaoning is comparable to Hebei and Shandong: the organic matter component in the soil and the quantity of rainfall are somewhat high.

2. Geographic Advantages: If in the future China develops into a corn-exporting nation, her primary trade targets will be Japan and the Soviet Union. Thus, Liaoning possesses an obvious geographic advantage for exporting corn. Liaoning has a long coastline, numerous ports, and convenient highway and railroad transportation. To export corn to Japan, Jilin and Heilongjiang would need to ship most of it through Liaoning harbors, which means moving it somewhat farther than corn produced in Liaoning would have to be moved. And

for exporting to the Soviet Union, Liaoning is also much better situated than Hebei and Shandong. However, this is only an internal comparison; much more important is a comparison with the United States. Right now the major corn-importing nations are Japan and the Soviet Union, and we possess an even greater geographic advantage over the United States with respect to them. As Japanese traders have noted, not only is Chinese corn higher in quality than U.S. corn, but transport costs are lower. In addition, using small vessels to ship corn directly to various Japanese ports can reduce vessel transfer charges, shorten transport time, and reduce interest on merchants' import credit to the lowest possible limit. Thus, some people predict that "China is becoming Japan's major corn supplier, and thus may put a squeeze on the United States' several-billion-dollar market." Liaoning, which enjoys a geographic advantage, should place an emphasis on corn production.

3. Consumption Advantages: Liaoning has many industrial and mining enterprises and a high urban population ratio. A high proportion of meat, milk, and eggs is needed in dietary composition, so a lot of corn must be used for fodder. Industry also uses a significant amount of corn. Therefore, as the proportion of corn in the diet decreases in the wake of the rising standard of living, the total need for corn will not drop day by day, but will rise. The following figures are based on predictions of the amount of corn Liaoning will need in the years 1990 and 2000: For foodstuffs we should require 2.31 billion jin of corn in 1990, decreasing to 1.26 billion jin in 2000; corn for fodder will reach 10.4 billion jin in 1990 and increase to 15.6 billion jin in 2000; for industry we will require 1.3 billion jin of corn in 1990 and 2 billion jin in 2000. The combination of all three produces a requirement for 14 billion jin of corn in 1990 and 18.9 billion jin in the year 2000. Calculating based on the assumption that we can maintain an area of 16 million mu devoted to corn cultivation, we must raise the yield from the current 805 jin per mu to 900-1,100 jin per mu. Clearly, this will be an arduous task.

#### IV. A Guiding Ideology for Developing Corn Production

In order to ensure stable growth in corn production and raise it to a new level, and to promote expansion in cultivation trades and processing industries, we must get our footing now, keep our eyes on the future, and adopt certain measures. As for our general guiding ideology, it should be to revise composition, increase unit yield, improve quality, handle grain conversion well, and raise exports.

Revising composition primarily refers to three situations: First, in regions where the sown corn area has in the past been too concentrated, we should make appropriate reductions in cultivated corn area and increase cultivation of other crops, particularly legumes. This applies specifically to those localities in which the proportion of corn already accounts for or exceeds 80 percent of the total sown area. Doing so brings advantages in preserving a good natural environment, ensuring sustained and balanced increases in yield over successive years, reducing the danger of blights and pests, maintaining soil fertility, improving living standards, and increasing agricultural results. There is a current saying that "the United States has the corn belt for growing corn, but we also grow corn in our own corn belt." This is a

misunderstanding. In reality, the land in the U.S. corn belt supports corn and soybeans in a ratio of roughly 3:1. That is, there is 1 mu of soybeans for every 3 mu of corn, and there are also other fodder crops grown as supplements. This is the only way to guarantee corn and soybean yields. Second, in the past some areas that from the start were unsuited to corn cultivation were growing corn anyway. These areas should switch to more suitable crops and refrain from cultivating corn. This would help to improve agricultural results. For example, the cold, semi-arid dune region of northwestern Liaoning, including most of Jianping and northern Beipiao, Fuxin, and Zhangwu, is deficient in moisture, heat, and soil fertility. It has a lot of wind-blown sand, severe spring droughts, a very short frost-free period, frequent occurrences of low temperatures and cold damage, and is extremely unsuited to growing corn. More early-maturing, drought-resistant crops tolerant of poor soil conditions should be grown there. Third, in some areas suited to development of paddy, wheat, and other fine-grained crops, we can reduce the cultivated corn area as appropriate and switch to growing fine grains and high-grade rice. In general, given a situation of stable corn cultivation area, we must make suitable revisions to make composition more rational.

We must increase unit yield primarily because the arrangement of overall crop composition and the state of land utilization preclude reliance on large increases in corn cultivation area to raise corn yields. However, because of the expansion of cultivation trades and the development of multipurpose uses for corn, society's need for corn will continue to grow dramatically. The only way to resolve this contradiction is to improve the output of corn per unit of area. Based on experience from all over, the most important technical measures for increasing corn yield are to make use of hybrid vigor, increase applications of fertilizers, reform the shape of cultivation, and put rational close planting into effect. Satisfactory control of blight and pest damages--particularly prevention or alleviation of damages due to leaf scab and leaf spot, green wilt, and sheath and culm blight--as well as early, seasonable sowing and late harvesting according to the circumstances, all play a role in increasing and stabilizing corn yield.

Improvement in quality refers primarily to the fact that the corn being produced in China today is quite unsuited to the demands of commodity production. Based on the various different uses for corn, we should develop different types and varieties that have different nutrient compositions and contents. For instance, based on fodder industry requirements, we should develop some corn that is fairly high in protein content, produces high yields of both kernels and stalks, and can ripen on the stalk. Based on food industry requirements we should develop some high-yield, hard-kernel types of corn. To suit the needs of the starch manufacturing industry, we should develop some relatively high-starch corn that contains special components, such as denatured starch, oxidized starch, or amylopectin. For foreign trade purposes we should develop some pure yellow and pure white corn and eliminate through selection hybrid yellow and white corn and other poor-quality varieties. To this end, breeding units and seed departments must revise their orientations in the near future and breed new varieties to meet the needs of commodity production step by step. At the same time, they must rapidly formulate new commercial quality corn standards and implement policies to

match high quality with high price. As for varieties to be used for special purposes, we must adopt special incentive policies to arouse initiative for developing all kinds of corn.

As for dealing with grain conversion, we feel that the major effort now should be to develop mixed feed in order to expand the livestock industry, actively develop the food industry, and expand the starch industry in a planned fashion. As for whether we should make use of corn to refine sugar, because it requires the importation of entirely new technology and equipment, the investment will be quite large. In addition, there are several other technical problems that we must resolve; we must make arrangements with great care and guard against rushing headlong into action. Based on our national conditions, we should concentrate on small and medium-sized models in building feed mixing plants. We should invest funds through many channels, engage in diverse forms of plant management, achieve local grain conversion, be supplied from nearby areas, move toward raising livestock in specialized households, and make things convenient for the masses. As for the feed industry that is already in operation, it should begin to play its full role as quickly as possible and the state should provide it with certain preferential pricing and tax policies. In developing corn for the food industry we should take care to improve nutritional quality and palatability and achieve an attractive product at a low price. In developing cornstarch we should emphasize rational composition, coordination between production and marketing, guaranteed raw materials, and constant quality improvement. Simultaneous with the development of the ordinary starch industry, we should develop unusual starch industries as needed.

In our current situation of insufficient grain conversion capability, increasing exports means that we must increase direct exports of corn. We can thus both alleviate "corn-selling difficulties" and gain foreign exchange. Right now part of the corn China exports does not meet the demands of the international market. We should take care to improve its commercial quality, particularly through the farm implements and threshing equipment we use.

12510

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NATIONAL

JUTE, AMBARI OUTPUT, FAR OUTPACING DEMAND

Beijing ZHONGGUO CUNZHEN BAIYE XINXI BAO in Chinese 14 Nov 85 p 2

[Article: "Output of Jute and Ambari China in Excess of Sales Has Become Inevitable"]

[Text] Production of jute and ambari in China is out of control. The planted area has been expanded blindly and output has increased substantially. According to a comprehensive analysis of the situation in all areas, output of jute and ambari is certain to exceed demand.

Here is the situation in each jute and ambari producing region: In Hunan, the planted area is 820,000 mu and output may reach 3 million dan, while total yearly consumption in the province is 710,000 dan. The prediction is that output during the next production year could supply Hunan for 3 to 4 years.

In Jiangsu, the planted area is 300,000 mu, which can produce 2 million dan, while yearly sales within the province are 1.2 million dan.

Shandong may produce 2.8 to 3 million dan of jute and ambari while sales within the province are 1.2 million dan. The historical pattern of shipping jute and ambari into Shandong has changed to one of out-shipment.

In Jiangxi, the planted area is 213,000 mu, which can produce 1 million dan. Yearly consumption within Jiangxi is 460,000 dan, so production exceeds sales by more than 500,000 dan.

The amount of planting in Sichuan is up 3.7-fold over 1984 and can produce 7 million dan. Total yearly consumption of the fiber is 700,000 dan, so there is a substantial contradiction between supply and demand.

In Anhui, the planted area is 2.6 million mu and there will be a surplus of about 7 million dan over the amount needed to satisfy demand.

In Henan, the planted area is 2.69 million mu, which can produce 8.5 million dan. The maximum capacity of markets within Henan is 3 million dan.

Hubei may produce 4.5 million dan of jute and ambari, up by 86 percent over 1984. There is self-sufficiency and a surplus.

12539/7687  
CSO: 4007/128

NATIONAL

SCIENTIFIC USE OF FERTILIZER URGED

Beijing RENMIN RIBAO in Chinese 23 Dec 85 p 2

[Article by Qin Zhongda [4440 0112 0671], Minister of Chemical Industry:  
"Actively Encourage Scientific Application of Fertilizer, Promote Stable  
Increased Production in Agriculture"]

[Text] Chemical fertilizers are a major bulwark of agricultural production. Ensuring bumper harvests in agriculture every year requires accelerated development of the chemical fertilizer industry. In the more than 30 years since the founding of the country, chemical industry departments have always regarded development of chemical fertilizers and aiding agriculture as their personal main responsibility. Currently, there are almost 2,000 chemical fertilizer enterprises in China at the county level or higher, the production capacity is more than 80 million tons (this and following figures are for standard chemical fertilizer), and varieties of fertilizer include urea, ammonium nitrate, ammonium bicarbonate, ammonium chloride, liquid ammonia, ammonium hydroxide, ammonium sulphate, ordinary calcium superphosphate, fused calcium-magnesium phosphate, and humic acid fertilizers; ammonium phosphate, potassium chloride, potassium sulphate, and micronutrient fertilizers are produced in small amounts. This has formed a chemical industry production system with Chinese characteristics, which simultaneously uses three kinds of raw materials (coal, petroleum, and gas) and integrates large, medium, and small enterprises. In 1984, the nation produced 72.5 million tons of chemical fertilizers, which included 58.38 million tons of nitrogen fertilizers, 14 million tons of phosphate fertilizers, and 120,000 tons of potassium fertilizer; the total output is third in the world, next only to the USSR and the United States. It make a contribution to aiding agriculture.

Although there has been major growth in China's chemical fertilizer industry, it still cannot satisfy the needs of agriculture. This is mainly seen in: 1) There is little variety in domestic chemical fertilizers; there is especially little phosphate, and even less potassium and compound fertilizers. The proportions of nitrogen, phosphate, and potassium fertilizers are not at all what they should be. In response to this, chemical industry departments are in the process of actively taking measures, within the national unified plan, to establish a number of key compound fertilizer projects, develop potassium fertilizer resources, restructure the mix of products, and gradually increase the percentage of phosphate and potassium fertilizers within the total output of chemical fertilizers, thus meeting the needs of agriculture. 2) There are

serious problems in the scientific and rational application of fertilizer. At present, when chemical fertilizers are applied in most areas in China, soil nutrients are not analyzed nor is there a diagnosis of plant nutritional needs, much less application of fertilizer according to formula. Due to the lack of scientific guidance, there is great deal of senseless application, causing the effective use rate of the chemical fertilizers to drop drastically and affecting the agricultural economic results.

Various chemical fertilizers all have their own characteristics, uses, and application methods. The principal nutrient in nitrogen fertilizers is the element nitrogen, an important part of all proteins and cell protoplasm in the plant. Applying nitrogen fertilizer can make the crop's branches and leaves grow profusely. The main nutrient in phosphate fertilizers is available phosphorus, which plays a key role for the plant's life activities in converting energy, respiration, and photosynthesis. Using phosphate fertilizers can give the plant profuse budding and plump fruits. The main nutrient in potassium fertilizers is available potassium, which is an activator of enzymes in plant cell metabolism activities. Applying potassium fertilizer can make the plant strengthen its resistance to drought, cold, and disease and make sure the stem has healthy and sturdy growth. This is why we say that nitrogen, phosphorus, and potassium are "three key elements" required for plant nutrition. The various micronutrient fertilizers contain boron, zinc, molybdenum, copper, manganese, and iron, which are nutrient elements indispensable to plant growth. Applying specific micronutrient fertilizers in areas lacking certain elements can allow plants to achieve striking increases in yields. According to on-the-site testing by agricultural science departments, the soil in Chinese farmland generally lacks nitrogen, phosphorus is usually lacking, and some areas clearly lack potassium and micronutrients. In agricultural production, we must bear in mind local production needs in proportionally mixing and applying nitrogen, phosphorus, potassium and micronutrient fertilizers according to the plant's nutritional needs and soil and climate conditions; only then will it be possible to improve the use rate of chemical fertilizers, ensure the healthy growth of crops, and effectively solve the problem of increasing yields.

Ammonium bicarbonate is a major kind of nitrogen fertilizer in China, currently accounting for 58 percent of total output of nitrogen fertilizers. Because ammonium bicarbonate's nitrogen content is only 17 percent, when removed from the package at ordinary temperatures it easily decomposes and volatilizes, presenting problems to field application and commercial storage and shipping; therefore, people have very different evaluations and understanding of its fertilizer efficiency. In order to scientifically evaluate ammonium bicarbonate and fully use its capacity to increase agricultured yields, agricultural scientific research departments have for many years done a great deal of work. Indoor system-simulation experiments, field fertilizer-efficiency comparison experiments, and local use under actual conditions nationwide have proven that as long as the fertilizer is applied scientifically and rationally, is applied deep in the soil and is used as a base fertilizer, it will be easily absorbed by the soil and work as quick-acting fertilizer; furthermore, the fertilizer efficiency is the same as equal amounts of urea or ammonium sulphate. In terms of its qualities as an agricultural chemical and its fertilizer efficiency, ammonium bicarbonate is

quite a good variety, especially given conditions in China: materials are available locally and it can be locally produced, marketed, and applied. For equal amounts of nitrogen, the price is cheaper than imported urea, thus saving China large quantities of foreign exchange. The Jixian County chemical fertilizer plant in Hebei, taking account of the local conditions-- impoverished soil, low fertility, and little rain and water, started in 1981 to cooperate closely with agricultural science departments in actively conducting experiments in application of ammonium bicarbonate to arid and semiarid farmland. They suggest changing topdressing to one-time base application in two layers, which is to take the fertilizer needed by the plant during its entire period of growth and integrate it into the turned-over soil as a base fertilizer; all of it is put into the soil at once, 20 percent going to the shallow layer and 80 percent into the layer beneath the plow. In this way, the ammonium bicarbonate is integrated with plowing, being applied deep and then covered with dirt, so that it is easily absorbed by the soil and damage from volatilization is avoided. Furthermore, first the soil is fertilized and then the seedlings are, benefiting the growth of crops. According to statistics from 1981 to 1984, the rate of per-unit area increases in grain yield was 30.8 percent, and per-unit area yields of cotton grew 180 percent. The Jixian County chemical fertilizer plant actively helps peasants analyze the soil and diagnose plant nutritional needs, recommends rational fertilizer application programs, and trains agricultural chemical technicians. This not only promotes local increases in agricultural yields, it also causes production and marketing of ammonium bicarbonate to thrive and improves the enterprise's economic results. At present, the plant is studying how to make fertilizers specifically for various crops and mixed fertilizers, further expanding the scope of its service to agriculture.

Ordinary calcium superphosphate is the main type of phosphate fertilizer in China, currently accounting for 72 percent of total phosphate fertilizer production. Tests by agricultural science departments have proven that although the available phosphorus content of ordinary calcium superphosphate is rather low, aside from the water-soluble phosphorus in the available component, the sulfur is also an important nutrient needed by plants. As long as it is properly applied, when compared to high-efficiency phosphate fertilizers with equivalent amounts of phosphorus, its fertilizer efficiency is similar. As long as we carry out, especially in the large areas of China which lack phosphorus, scientific fertilizer-application techniques such as phosphate application in low-yield fields, use of phosphorus to increase nitrogen-fixation in legumes, and, for grasses, the mixing of phosphate and nitrogen fertilizers, use of phosphate fertilizer as a base fertilizer, concentrated application of seed manure, and dipping seedling roots, we can effectively improve the level of per-unit area crop yields, as well as improve the quality of grain and cotton. In other words, scientific and rational application of fertilizer is crucial to realizing bumper grain and cotton harvests and agricultural growth.

In the new situation, if we want small chemical fertilizer enterprises to maintain their thriving vitality and make new contributions to supporting agriculture, every level of chemical industry departments and small chemical fertilizer enterprises should concentrate on three tasks: 1) Conscientiously strengthen management of enterprises, further carry out feasible management

practices, conserve energy and reduce consumption, lower costs, raise quality, and improve packaging. 2) Establish firmly a commitment to serve agriculture wholeheartedly, seriously study and widely promote the experiences of the Jixian County chemical fertilizer plant, closely cooperate with agricultural science units and agricultural finance departments, give considerate service to peasants, and enable the existing county-level small chemical fertilizer plants to gradually become small-scale mixed and compound processing plants, scientific fertilizer-application service posts and supply depots directly providing chemical fertilizer to peasants; in this way we can establish a rational new system of chemical fertilizer production, scientific research, marketing, and service. 3) Emphasize various models for the technical transformation of small chemical fertilizer plants which will meet local needs; restructure the product mix, including transformation into urea, diammonium phosphate, ammonium phosphate, and modified ammonium carbonate, gradually increasing their use; and at the same time work hard to improve "diversified production, with fertilizer at the center."

In order that the small-scale chemical fertilizer industry may further play an important role in supporting agriculture, many local governments, in accordance with pertinent national regulations, are reducing or cancelling the tax on products which use coal and coke as a raw material; according to the characteristics of chemical fertilizer production in normal years and seasonal usage, they are providing enterprises with loans for marketing off-season stores or they are issuing loans to peasants, so that the fertilizer is stored with the people and is available when needed for agricultural use; the work of industrial and commercial departments is closely coordinated, marketing of chemical fertilizers is strengthened, and the chemical fertilizer is sent to the peasant households and the fields, preventing shortages in buying fertilizer during the busy time of spring plowing; the marketing price of chemical fertilizer is allowed to fluctuate up and down between the high- and off-season for marketing; enterprises are provided with coal and electricity at the preferential price for supporting agriculture; and so on. We believe that these supportive policies and measures, which benefit growth in China's chemical fertilizer industry, should be further promoted and implemented.

12919/12913  
CSO: 4007/174

NATIONAL

STUDIES ON THE MONOCLONAL ANTIBODY OF EQUINE INFECTIOUS ANEMIA VIRUS

Beijing ZHONGGUO NONGYE KEXUE [SCIENTIA AGRICULTURA SINICA] in Chinese  
No 5, 85 p 81

[English abstract of article by 'Lu Jingliang [4151 2529 5328] et al, of Harbin Veterinary Research Institute of the Chinese Academy of Agricultural Sciences]

[Text] Spleen cells from BALB/c mouse immunized with Equine Infectious Anemia (EIA) virus soluble antigen were fused with mouse myeloma cell line SP2/0. Then three hybridoma cell lines, namely A4, A6, and C4, producing monoclonal antibodies against EIA virus soluble antigen were obtained. Their secretions were proved to contain monoclonal antibodies against EIA virus soluble antigen by enzyme linked immunosorbent assay (ELISA) and indirect immunofluorescence (IF) test. These monoclonal antibodies were identified as mouse IgG<sub>1</sub> with standard rabbit anti-mouse IgG subclass antisera. The apparent molecular weight of the IgG<sub>1</sub> was 150,000 d, and that of its heavy and light chains were 50,000 d and 25,000 d, respectively. The physiochemical and biological properties of the monoclonal antibodies were in accord with those of IgG<sub>1</sub>.

CSO: 4011/26

NATIONAL

BRIEFS

**FORESTRY OUTPUT BOOSTED**--Beijing, 26 February (XINHUA)--Output value of forestry businesses has increased from 310 million to 550 million yuan over the past five years, thanks to the diversified economy, the Ministry of Forestry reported here today. Forestry enterprises include crop cultivation, animal husbandry, and the processing, servicing, mining, and transportation of these resources. The number of forestry enterprises has grown from 3,500 with 450,000 workers to 4,200 with 640,000 workers in five years. Oil-bearing trees are being harvested along with newer products including fruit trees. China planted 3.8 million hectares of fruit trees in the 1981-1985 period. The output of date, Chinese chestnut, walnut, raw lacquer and anise reached record highs last year. Wild fruits, such as sea-buckthorn and yangtao (goat's peach) are also being cultivated. A hundred grams of their fruit contain 800 and 200 milligrams of vitamin C respectively, 20-160 times that of apple. Guangdong province has planted 70,000 hectares of fast-growing, high-yield trees over the past five years. It plans to add an additional 340,000 hectares in the 1986-1990 period. [Text] [Beijing XINHUA in English 1124 GMT 26 Feb 86 OW] /12913

**PLA FARM OUTPUT**--In 1985, PLA farms quickly developed economic diversification, the area planted to oil crops, sugar crops, tea, medicinal herbs and other cash crops was 1,050,000 mu. They raised fish in 147,000 mu of water, the marine catch was 14 million jin, meat production (eggs) was 120 million jin. vegetable production was 1.4 billion jin, the output value of 89 processing plants was more than 500,000 yuan; the gross profit of the farms was 260 million yuan. (From JIEFANGJUN BAO) [Text] [Shanghai JIEFANG RIBAO in Chinese 10 Jan 86 p 1]

**AGRICULTURAL DATA BASE**--China's first large-scale agricultural economic statistics data base system was recently set up at the Chinese Academy of Agricultural Sciences in Beijing. This is a major reform in the area of planned management and statistics work for China's agricultural economy. It will store 200 records on population, labor, cultivated land, agricultural machines, and distribution of profits at the national, provincial, regional and county level. Each year 500,000 items of data will be entered. (From SHOUDU XINXI BAO) [Text] [Shanghai WEN HUI BAO in Chinese 10 Feb 86 p 1]

ANHUI

## RAPID DEVELOPMENTS IN FEED INDUSTRY REPORTED

### Full-Service Outlets in Place

Hefei ANHUI RIBAO in Chinese 4 Dec 85 p 2

[Article: "Anhui's Feed Industry Develops Rapidly; a Rational Layout and full-Service Outlets Basically in Place for the Feed Industry System"]

[Text] "You can characterize the rapid growth of Anhui's feed industry in a single line of Tang poetry: 'Spring moistness brings heavy rains this evening!' In 1982, Anhui's feed industry was nonexistent. Mixed-feed output in 1983 was only 24,000 tons, putting the province in 27th place nationwide. Last year's quota of 216,000 tons was reached; and Anhui had risen to 14th place, while this year's first half jumped us to fourth place in output. From January through October, over 567,000 tons of feed had been produced, which exceeded state-planned output by 42 percent before the year was out. Projections for the whole year run between 650,000 and 700,000 tons, for a transformation of 700 million jin of grain. At the same time, this provided ample logistical support for the province's breeding industry." Thus reads the good news leaked to reporters by a leading comrade in the Anhui Feed Corp.

With the readjustments in the makeup of rural production and the rapid development of the breeding industry, Anhui's feed industry, which has gotten off to a slow start, welled up like a spring shower. It had the following four characteristics:

--Stable steps and rapid results. In 1982, the provincial committee and government drafted a strategic 3-year plan for establishing a feed industry system based on actual conditions in local regions and in grain departments and adopted an appropriately measured scale of control at the ground level. They marshaled scarce capital and material resources and set up effective mainstay measures for the feed industry based upon differences in region, lots, and seasons. Over the 3 years, 2 large and 78 middle-sized feed plants were built, among which 75 enterprises saw returns in the first year of production. This brought both stability and rapid growth to the feed industry, and blended speed with returns.

--A sensible and comprehensive groundwork. Anhui basically put together its feed industry system through 3 years of hard work. Depending on population,

grain production, and the stage of development of the breeding industry, anywhere from one to two intermediate mainstay enterprises were set up in all counties and cities except Fuyang and Suzhou, spearheading multitiered development of the feed-processing industry in all areas.

---Production diversification and development of product lines. Anhui's feed industry products are manifold, with special-use feeds for chicken, ducks, geese, rabbits, sheep, swine, cattle, quail, and fish. The systematization of these product lines has begun, as in dividing chicken feed into that for meat poultry and laying poultry, fledglings, and fattening chickens.

--Formation of a contingent of highly-trained workers. Even as work goes forward at the basic level, the Anhui Feed Corp is going forward with training specially fashioned to such key staff positions as executives, plant managers, technical and lab personnel, accountants, and skilled operating workers and electronics technicians for microcomputers. Over 10 courses of all kinds have been held over the past 3 years. In addition, mainstay feed factories in every country have been building up specialized training to upgrade significantly the quality of work throughout the feed system.

#### Rapid Development Urged

Hefei ANHUI RIBAO in Chinese 4 Dec 85 p 2

[Article by Wu Bin [0702 2430]: "Accelerate Development of Anhui's Rural Feed Industry"]

[Text] The rural township feed industry is an important organic part of the feed industry system as a whole. Developing this rural industry, with its local exploitation of resources, local processing, sale, and increase in value not only can improve the commodity rate for farm products and partially solve farmers' "selling difficulties"; it can also alleviate burdens on transportation, give work to a segment of excess labor, beef up rural economic power, and accelerate the development of farming, animal husbandry, and fisheries.

Anhui was relatively late in this area and had an uncertain foundation for it. After a number of years of development, it has now begun to achieve an initial order to magnitude. There are now 99 feed-processing plants with yearly output of mixed feed totaling 45,000 tons. Projects are that by year's end there will be 50 more factories. However, this is still short of what actual needs require. In some areas, the tethers of the old small-farmer mentality with its focus on planting divert attention away from the feed industry. In addition, raw material supplies are not assured, technical strength is weak, and fears exist that producing feed may lead to a loss. Thus, affirmative developments do not go forward. In fact, favorable conditions for rural township feed processing are now numerous. Considerable amounts of farm products are concentrated in the hands of the farmers. These products are plentiful, hard to store, easily degraded, and of low utility. It is difficult to get them to larger urban areas in time for processing; and rural enterprises can

make the most of their advantages to purchase, process, and sell feed locally. Moreover, accurate assessments of the rural industrial situation are available and information feedback is rapid. Different products can be exchanged in a timely fashion. With good management and compensation for shortcomings, the feed industry has a broad avenue for future developments.

How can we raise economic returns in rural feed enterprises? First, we should hold fast to correct development policies and strive to improve operational management. This is based on making local and nearby sources a priority, and opening up multiple channels and multiple levels of raw material supply. In those areas where conditions are right, supply contracts can be signed for most or a portion of raw materials between farm households and food factories, and there can also be joint operations between these and large and middle-sized factories. The feed industry is a major organic part of farming and animal husbandry. It should develop in the direction of joint enterprise between "feed industry, feed lot, and animal-product processing." Whatever mode of manufacture is adopted, all should fully utilize local raw materials, base themselves on modern domestic animal nutrition theories, meet the needs of the raising householder, make up for shortcomings, and be flexible in production. At the same time attention should be paid to quality, reputation, and developing the trust of the farmer. Pricing should pit "high against high" (for negotiated prices) and "low against low," with a focus on high volumes and low margins to bring profits to the people.

Second, the groundwork for a rural township feed factory should be well laid. For a long time, right up to the present and into the future, Anhui's domestic feed industries will be focused on small, scattered households raising primarily swine and poultry. Thus, the general scale of feed-processing plants should be small, with an average hourly processing capability of between 500 and 1,000 kg. The layout should be adapted to the scale of local planting and the level of production, adapted to the process of improving bloodlines of poultry and other domestic animals, adapted to the level of production, comprehensively planned, and sensibly arranged. Moreover, feed plants are best constructed in places near transportation and electric power, which use little earthen construction, where raw materials are relatively abundant, and where the absolute proportion of masses raising domestic animals is high.

Third, promotion should be intensified through expanded use of free samples. Some of the masses have little understanding of the role and method of using feed. Therefore, a good deal of promotional activity needs to be done. Moreover, expanded use of free samples is a living form of advertisement. The raising household can see the results for itself and will become enthusiastic about purchasing compound (mixed) feeds for their animals. Thus, prospects for future sales of feed may become better and better.

Fourth, investment in knowledge must be stressed, and production techniques continually improved. As far as the technical work of personnel engaged in mixing, testing, processing, and equipment repair for the feed, there should be a period of pretraining to fill the dire need for them. The best of these can then be tracked into different specialities for more planned training, to eventually build up a body of technicians which understands production, is good at business, and is well-supported. This will give the industry a vigor and a relatively strong competitive edge.

19 March 1986

ANHUI

## LIVESTOCK INDUSTRY GROWTH NOTED

Hefei ANHUI RIBAO in Chinese 13 Dec 85 p 1

[Article: "Anhui's Livestock Industry Continues To Grow; As of End of September, 14,589,300 Head of Swine on Hand and 5,853,600 Gone to Slaughter; 4,426,800 Head of Large Animals on Hand; 2,628,000 Sheep on Hand; and 7,888,600 Rabbits on Hand"]

[Text] Over the past year, Anhui's livestock industry continued its healthy growth trend. At the end of September, there were 14,589,300 swine on hand, up 18.3 percent from the same period last year, and 5,853,600 went to slaughter, up 16.6 percent. Large animals on hand amounted to 4,426,800, up 10.9 percent; sheep, 2,628,000, up 17.6 percent; rabbits, 7,888,600 on hand, up 1.28-fold; poultry on hand, 219,072,100, up 38 percent; beehives, 193,800, up 11.2 percent.

In order to spur development of the livestock industry, Anhui's various regions have been vigorous in proliferating improved strains, accelerating improvement of stock, and utilizing improved hybrids; 121,100 head of large animals being artificially inseminated, 68.19 percent by frozen semen. The use of the "three chemicals" to raise swine is gradually spreading. In 584 villages in 63 counties throughout the province, 57,500 local sows were bred to produce 406,400 hybrid shoats, of which 134,800 head went to slaughter as lean pork. At the same time, all areas vigorously promoted immunization assignments and disease eradication. The use of a diversified immunization-assignment responsibility system was expanded to 1,929 villages in 69 counties. Altogether some 3,313,600 households participated in immunization contracts. Veterinary departments in all areas took assignment for 5,702,600 head of swine, 1,321,100 large animals, and 43,212,700 poultry.

The livestock industry in all areas is still experiencing some noteworthy problems. For example, the price for some feed produced by grassroots-level factories is too high and quality is poor. This brings little benefit to the user household. Supplies of raw materials for feed-processing factories in the agricultural livestock system are inadequate, and the utilization rate for equipment is low. In the Huaibei region, the purchase price of goatskins has jumped and the number of households slaughtering their goats for skins is up. Some have gone so far as to kill off all their kids, which may have an impact on development of goat-breeding in the future.

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ANHUI

# PERSISTENCE URGED IN ADVANCING SECOND-STAGE RURAL REFORMS

Hefei ANHUI RIBAO in Chinese 30 Dec 85 p 1

[Commentary: "Persist in Advancing Second-Stage Rural Reforms"]

[Text] The second stage of rural reform in Anhui comprising readjustment of the makeup up of production is now going forward in a healthy fashion within the broad context of reform of the urban and rural economic structure.

If we consider implementation of the agricultural responsibility system as China's entering the first stage of modernization, then readjustment of the structure of production is now pushing China into the second stage. The provincial CPC committee and government, based upon the actual situation in Anhui, as the new year begins have suggested the following guiding principles for implementing the spirit of directions from the central leadership: "first, adjustment (of the structure of production); second transformation (of grain and transfer of labor force); and third, breakthrough (in development of animal husbandry, aquatic products, and rural township enterprises.) The past year's experience demonstrates that the success and impact of readjustment of the economic structure has been manifest. With planting area this year in the province to be down almost 5 million mu, total grain output should still approximate the bumper harvest of 1984 at around 42.8 billion jin. Gross livestock output value should reach 2,713,000,000 yuan--up 34.4 percent from last year. Gross aquatic product value is projected to be 209.13 million yuan--up 19 percent; and projections for rural township enterprises show a figure of 8.5 billion yuan--up 84.78 percent from last year. The proportion of cash crops in farming as a whole, of forestry, animal husbandry, byproducts, and fisheries in agricultural output value, and of rural industry, commerce, transportation, services, and construction in the total rural economy should all be up around 5 percent. Agriculture is now undergoing a change from the old concept of exclusively grain and ancillary crop production. Anhui's farming is moving from sole emphasis on grain production to a new situation where a hundred flowers contend in brilliance.

Of course, all is not perfect in the readjustment process. At the macro-economic level guidance is inadequate; at the microeconomic level, avenues of revitalization are sparse. In some areas there is a tendency to overlook grain production and planting. Nevertheless, it should be noted that the existence of these problems is a normal occurrence and part of the process of development. As long as they are noted and treated conscientiously, they

will not be difficult to solve. One cannot let the existence of these issues blur one's vision and allow doubts and wavering, much less disparagement, to creep in concerning the second stage in rural production reforms. Our overall view of agriculture should include not only the situation in grain, but also the rural economic picture as a whole. The total picture should not merely comprise farming, it should be linked to the total national economic picture. Even within the grain picture, one cannot look to just a single year's performance.

Rural reforms come about in an inchoate fashion. Our goal is to create a modern socialist agriculture with Chinese characteristics. This overall goal determines that we can have no previous experience or models to follow feature for feature. The development of farming cannot be divorced from the national situation of 1 billion in population and 800 million farmers, or from the fact that China's traditional rural farming has been one of self-sufficiency year after year. Our development of China's agriculture must be grounded in Chinese soil; however, farming cannot rest at the same level as always before. It must have new breakthroughs and developments. The reform of rural production structures and development of rural commodity production are reform programs which have been put forward in the course of these special conditions. Recently, the central leadership suggested that farming should be "transfigured." As far as planting is concerned, this means a transformation from the old pattern of straight grain planting to a new pattern of planting which includes grain crops, cash crops, and feed crops. From the standpoint of agriculture in general, the pattern should go from straight planting to an agricultural ecotype comprising comprehensive development of farming, forestry, livestock, sidelines, and fisheries--moving from straight biological reproduction as a pattern to a complex pattern of agriculture in which biological reproduction and economic reproduction are joined together. This is the path of "more links between planting and breeding, and integration of production, supply, and sales." This will gradually lead away from small-scale manual production toward large-scale mechanized production and lead away from simple production links toward a comprehensive process of "production, circulation, distribution, and consumption."

A "transfiguration" of agriculture will gradually be actualized through readjustment of the makeup of production. It is of utmost importance to summarize the experiences and lessons of this year's readjustments toward guiding readjustments next year and the "transfiguration" of agriculture. An important reason why Anhui's agricultural development has been comparatively stable, coordinated, and sustained this year is that the policy of "not relaxing grain production while affirmatively inaugurating diversified operations" has been conscientiously implemented. The importance of grain production goes without saying. This is even more the case in the second state reforms, since it is a precondition precedent to readjustment of the makeup of rural production. However, this is only one aspect of the situation. A second aspect is that if there are to be developments in rural commodity production and in bringing sense to the trends within the structure of agricultural production, there must also be requisite readjustments made in planting area, labor forces, finances, and other sectors of agricultural investment. Within these conditions, if we are to develop grain production in a stable fashion, we must not

only control at the macroeconomic level the impact of reduction of farmlands, but solve this through widespread higher yields, higher quality, countering resistance to use of improved strains, and increase investment in grain production. At the same time, we at the policy level must protect farmer enthusiasm for planting grain. In order to reduce the disparity between incomes derived from planting grain and engaging in industrial and sideline industries, a method which uses industry to subsidize agriculture and grain can be adopted. One-half of the revenues derived from taxes on rural township enterprises can also subsidize farming--and especially grain production.

Planting and transplanting of grain has been the traditional activity of China's farmers for thousands of years. The second state of rural reform has already begun to draw a number of farmers whose ancestors have for generations held onto the land for their livelihood into new rural economic projects, such as livestock, aquatic products, and rural township industry. As rural commodity production develops, this trend will become even more salient. This is a historical advance of enormous significance. Only by fully affirming this trend can we maintain our wits in the face of arguments which are unrealistic and even pessimistic and be unwavering in propelling the second-step rural reforms into a new stage. Anhui has an abundance of feed and forage resources from Huaibei to Jiangnan, a reserve of cultivable water surfaces unsurpassed in the nation, an abundance of mineral deposits and agricultural products--all of which are favorable toward the development of animal husbandry, aquatic products, and rural township enterprises. It would be no error for us to utilize these conditions to develop rural commodity production; rather this is the road which must be taken toward bringing affluence to the countryside and toward agricultural modernization. The key to the issue lies not in whether to open up this new sphere of production but rather how to strengthen leadership at the macroeconomic level and implement the proper direction to assure that both grain production and diversified operations will show stable increases. As far as Anhui's rural economy when compared to a few advanced provinces and municipalities is concerned, where we fall behind is not in grain production but mainly in the fact that rural township enterprises and diversified operations have not yet fully developed. In the coming year, we must still exert great efforts to master these weak links, and gradually establish a comprehensive structure of production which has farming as its base, has control over grain production, fosters revitalized circulation, all of which link up in development in an integrated fashion. We must realize the optimum combination of such production elements as resources, funds, labor force, and technology, and achieve unification of economic, ecological, and social results. Within a rather short period, we must place Anhui's rural economy in the forefront of the entire nation.

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ANHUI

## EFFECT OF REFORM ON RURAL COOPERATIVES DISCUSSED

Hefei ANHUI RIBAO in Chinese 8 Dec 85 p 1

[Article: "Reforms Bring Opportunities to Credit Cooperatives: Farmers Have Their Own 'Little Banks'; an Average of 1 Service Facility for Every 3 Villages and Every 902 Farm Households Throughout Anhui"]

[Text] The reforms in economic structures have given Anhui's credit cooperatives new opportunities and new vigor. There are now more than 11,000 credit cooperative outlets scattered throughout Anhui's villages, with an average of 1 for every 3 villages and every 902 farm households.

Over the past year, there has been reform of rural credit cooperatives across the board. As of the end of October, 99 percent of the 3,400 grassroots level cooperatives with independent accounting had undergone reforms. Of the province's 74 counties, 68 had set up joint county cooperatives. Along with the reforms have come the beginnings of a return and strengthening of the mass nature of the organization of these cooperatives, a more democratic form of management and a business vitality. More than 7.79 million rural households comprising 78.4 percent of all farm households in the province have made themselves shareholders in a cooperative. This is an increase of 4.43 million households compared with the situation before reforms. The amount of money invested is almost 27 million yuan; and the majority of these credit cooperatives have begun to give their farmer shareholders "first priority and preferential rates" on loans. The farmers have, on their part, begun to refer to these cooperatives affectionately as "our own little banks." Over 3,300 boards of directors have been newly established for credit cooperatives throughout Anhui, over 3,100 watchdog commissions, and, in a majority of cooperatives, meetings of stockholder representatives and work-distribution systems. Certain pressing issues within the cooperatives have begun to be discussed and resolved by democratic management teams, and the bulk of the leadership and management provided the cooperatives by the Agricultural Bank has been in the form of overall planning. Moreover, these cooperatives have moved away from the prereform method of "issuing loans in spring, collecting in fall, and doing nothing in winter." They are stressing maintenance of production and have also been involved in support of circulation, services, and regular disbursements and collections. As of the end of October, the surplus of deposits had reached 1.8 billion yuan, up 200 million from the year before. Of this, farmer deposit accounts totalled 1,353,000,000 yuan or an average of over 30

yuan per capita. Loan accumulation amounted to over 1.6 billion, up 243 million from the same period last year. The province has 55 percent of farm households with loans; and this was an enormous boost to readjusting the rural production structure and the development of the commodity economy.

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CSO: 4007/191

ANHUI

## IMPORTANCE OF GRAIN PRODUCTION STRESSED

Hefei ANHUI RIBAO in Chinese 9 Nov 85 p 3

[Article by Meng Fulin [1322 1381 2651]: "Grain Production Must Be Stressed and Well-Executed"; ANHUI RIBAO abstract of article originally published in LILUN XUEXI [THEORETICAL STUDIES] No 10, 1985]

[Text] In Comrade Chen Yun's speech at the National Congress of the CPC, he stated that "currently some peasants are not interested in growing grain; we should pay attention to this problem. ...feeding and clothing 1 billion people is a major economic problem for China and is also a major political problem. 'Without grain there is chaos'; we had better not underestimate this matter." This goes to the crux of the problem, and leads us to think deeply about it. We must definitely study, understand, and fully recognize the importance of the grain problem and, in the process of actively and securely restructuring rural production, strongly, strongly emphasize grain production and promote the continued, stable, and balanced development of the national economy.

### I

Anhui is one of China's principal grain producers, and is also one of the principal sources of commodity grain. In 1984 the total grain output was 44.05 billion jin, a historical high and a 2.4-fold increase over 1949; Anhui ranks seventh in the nation. Since the 3d Plenum of the 11th CPC Central Committee, grain production has increased greatly every year. Comparing 1984 with 1978, total grain output increased 48.6 percent. Last year the average amount of grain per person in Anhui was 863 jin, 37.2 percent more than in 1978. In the past few years, Anhui has annually shipped out an average of about 1 billion jin of commodity grain; last year a net amount of 1.55 billion jin was shipped out. This year the state asked us to ship out a net amount of 3 billion jin of grain. This shows that the development of grain production in Anhui has made a definite contribution to the state; it also illustrates that the burden we are shouldering is increasingly heavier and our responsibility is increasingly formidable.

In the past few years, the provincial central committee and people's government have always placed considerable emphasis on grain production. They have stressed four links: (1) Clarify the main goals. Prefectures north of and along the Huai He should focus on avoiding disasters and on ensuring the harvest of wheat. After Comrade Wan Li came to Anhui to take charge of the

provincial central committee work, he established the policy which "concentrated on wheat" and ordered such measures as tailoring production to local conditions, rational distribution, keeping acreage constant, and concentrating on per-unit yields. Guided by this correct policy, Anhui has stressed it for several years and achieved striking results in increased yields. Comparing 1984 with 1978, total wheat output and per-unit yields grew 128 percent and 94 percent, respectively. At the same time, there were also large increases in the output of paddy rice and other grains. (2) Heavily stress technical measures for increasing production. With improving per-unit yields as the goals, select appropriate high-quality main strains suited to local conditions; promote application of foliage fertilizer, application of prescribed mixes of fertilizer, cultivation of hybrid paddy rice and cultivation with plastic-sheet mulching. For example, from the beginning of trial planting of hybrid rice in 1976 until last year, the are planted with the hybrid is more than 18 million mu; the average increased output per mu is 150 jin, for a total increased grain output of almost 3 billion jin. (3) Set up commodity grain production bases. Supported by the state, Anhui has set up eight commodity grain production base counties in Shouxian, Tianchang, Fengyang, Changfeng, Feixi, Liuan, Huoqiu and Lujiang Counties, increasing inputs into production and improving the economic results. (4) Strengthen capital construction for grain production. In the past few years, we have strongly stressed farmland capital construction focusing on building water conservancy projects. Since 1978 we have built many water conservancy projects, increasing the ability for mechanized drainage and irrigation; there has also been large expansion of the agricultural production use of machinery; the amount of fertilizer used has increased annually; and there have also been significant results in the transformation of the sallow black soil north of the Huai He.

This year we are beginning the second step of rural reform, the first year of thorough restructuring of rural production. Because we kept a clear head while we had overall control of the entire rural economy, macroeconomics guidance and guidance of different categories were strengthened and grain production was basically kept stable. According to statistics from the September meeting analyzing the agricultural situation in Anhui, this year 88.27 million mu in Anhui were planted in grain, about 5 million mu less than last year, a reduction of 5 percent; it is predicted that the total grain output for the whole year can be expected to hold even with last year's or be slightly less. In general, the grain production situation in Anhui is good. However, there have also been some unsteady elements. Some places have a lopsided interpretation of the restructuring of rural production, thinking it only means increasing financial income, to the extent that mere mention of restructuring makes them think of reducing the area planted in grain. In some places the grain acreage has been reduced too much, grain fields have been dug up to make fish ponds; in a few isolated places there is even abandoned farmland. This deserves the very serious consideration of leaders at every level.

## II

Grain production is an extremely important economic and political problem.

Comrade Mao Zedong told us again and again: "The whole party should attach great importance to agriculture. Agriculture has an enormous influence on the national economy and the people's standard of living. Beware, it is dangerous to ignore grain." "The people regard food as their god." Marx said, "Food production is the lifeline of the direct producers and the primary condition for all production."

Agriculture is the foundation of the national economy, and grain is the foundation of the foundation. Agriculture has a very large share of China's national economy. Anhui is a primarily agricultural province. The total agricultural output value is about half of the total output value for industry and agriculture in Anhui; grain production has a major position within agriculture. History and reality tell us that the abundance or shortage of grain clearly influences the speed of development of the national economy and the people's lives; the ability of the national economy to move ahead systematically and with the right proportions is directly connected to the level of grain production. If grain production is stable, the whole economy can prosper. If there is not enough grain, the market and price are not stable, each section of the national economy will lose equilibrium, and industry and other enterprises will always be in danger of losing ground, even though for the moment there may be relatively fast development.

Grain is the foundation stone for the development of agriculture itself. "Without agriculture there is no stability" in fact should be "without grain there is no stability." Stalin once stated: "The grain problem is the fundamental link in the agricultural system, and is the key to solving all other problems in agriculture." Our policy is to "never neglect grain production, actively develop a diversified economy." Only after peasants meet their basic needs can they engage in other production and open up new roads to production. Only when there is a lot of grain can we focus on the depth and breadth of production. At present, while developing the second step of rural reforms, the most important material foundation giving us the conditions and possibility of restructure production is the slight surplus of grain. Otherwise it would be very difficult for forestry, animal husbandry, and aquaculture to keep up and very difficult for village industry, commerce, and sideline production to develop; it would also be impossible to proceed smoothly with returning farmland to lake and forest and maintaining an agricultural ecological balance.

Grain is also an important resource in the preparation against war and famine. China's ancient politicians and military specialists all understood that "the key to eliminating bandits is accumulating grain." Every year over China's vast area there are some areas which meet with natural disaster. Anhui is located between the Chang Jiang and the Huai He, and is frequently afflicted by floods and droughts; both the state and peasants should certainly keep sufficient grain stores. Of the numerous social upheavals in history, aside from political factors, an important cause is famine and grain shortages. This also deserves serious thought. The lessons of history cannot be forgotten.

### III

The CPC Central Committee's suggestions for the Seventh 5-Year Plan, passed by the CPC National Congress, state: "We must adopt effective policies and measures so that we continue to maintain steady increased yields of grain. Places suited to grain production must certainly plant grain, work hard to increase per-unit yields, increase varieties, and raise quality." This is one of our long-term strategic plans. Based on the real situation in Anhui, from now on we must direct a great deal of effort to improving per-unit yields and quality, adopt more forceful policies and technical measures, and ensure steady increased yields of grain. The total output next year should reach 45 billion jin; by the end of the Seventh 5-Year Plan the average amount of grain per capita should be more than 1,000 jin.

Grain production is something for which Anhui is ideally suited. We should continuously educate the great masses of peasants to view grain production from the perspective of the entire situation and the overall economic results; they should correctly recognize that the current surplus is a relative one due to the low level. Taken as a whole, our level of grain consumption is not high and there is little variety of strains; furthermore, in the long run, if we wish animal husbandry, aquaculture, rural township enterprises, food industry, and light industry to make breakthroughs in development, the current level of an average of over 800 jin per capita is far from enough; we absolutely cannot treat the problem lightly.

There is definitely blindness and other problems in those areas which have reduced grain acreages too quickly and developed certain cash crops too suddenly. We must take the matter seriously and give them guidance, but at the same time we should not treat the problem too seriously, shaking confidence in the second step of rural reforms; we certainly should continue to move forward along the path of restructuring. With the steady growth of grain production as a premise, we should actively and securely carry out restructuring, going one step at a time, cautiously formulating policy in an unimpassioned way that will elicit truth from facts. In the past few years, grain acreage in Anhui should be kept steady at about 90 million mu; at the same time we should increase the multiple-crop index so as to expand the area planted in cash crops and develop a diversified economy.

At present, the quality of grain varieties is rather low and is unable to meet the needs of people for their daily life and the needs of the international market. We should work hard at selective breeding, promoting high-yielding, high-quality, highly resistant outstanding varieties and quickly eliminating varieties inferior in quality; we should perfect a system of breeding good varieties and formulate plans for standardizing cultivation techniques; we should replace processing equipment and improve the technological process, gradually set up modernized granaries, research and implement safe and effective storage technology, and increase drying equipment; at the same time we should set up and perfect methods for monitoring grain, storing and processing grain according to varieties and grades.

In order to encourage the peasants to plant more and better grain, on a foundation of thorough investigation and research, we should formulate appropriate policies and measures to encourage the peasants' enthusiasm for planting grain, e.g., reduce the burdens of grain-growing households, use special benefits to encourage large grain-growing households to take over responsibility for land and practice specialized production; actively develop rural township enterprises, use industry to subsidize agriculture, and support grain production; as soon as possible formulate and implement policies whereby quality sets the price--high prices for high quality--thus using economic methods to improve grain quality; further implement the policy of procurement by contract, so that after peasants have honored the procurement contract they can freely take their grain to the market and freely buy and sell it; if the market price is low, grain departments must be sure to still purchase grain freely according to the protection price--in order to protect the interests of the grain-growing peasants, they may not refuse to buy grain or deduct from the payment.

Lively circulation should be seen as the starting point for furthering the steady growth in grain production, further solving the difficulty in selling grain. We should develop a number of circulation channels for grain: state-run grain departments should really play the role of the main channel and think of ways to help grain-growing peasants to find markets for their grain, as well as encouraging millions of peasants to enter the field of circulation. We should accelerate development of processing grain into feed and food, promoting the production and conversion of grain. Every department and industry connected with grain production should focus on grain production, and strive to provide good service. Leaders at every level should change their style of leadership and work methods, further stressing grain production, actively and securely bringing the structure of rural production in Anhui to a new stage, and promoting socialist modernization.

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## ANHUI

### BRIEFS

RURAL TASKS FOR 1986--The specific targets for Anhui's agricultural production in 1986 are: Grain output should reach 44 billion jin, oil crops should reach 3 billion jin, cotton should reach 3.5 million dan, the province should afforest 1.5 million mu, town and township output value should reach 12 billion yuan, total agricultural output value should exceed 20 billion yuan, and per capita peasant income should increase by 50 yuan. [Summary] [Hefei ANHUI RIBAO in Chinese 3 Feb 86 p 1]

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BEIJING

## POLICY AFTER DEREGULATION OF PORK PROCUREMENT

Beijing ZHONGGUO CUNZHEN BAIYE XINXI BAO in Chinese 14 Nov 85 p 1

[Article by "responsible editor" Zhao Lianzhi [6392 6647 1807]: "Counter-measures Following Elimination of Assigned Purchases for Pigs"]

[Text] After the elimination of assigned purchases for pigs and implementation of new measures for guidance type negotiated purchases and negotiated sales, inventories of pigs in China rose and markets were invigorated. Rural trade markets in many areas are competing to sell pork and there has been an obvious increase in the amount of fresh meat supplies. In addition, prices basically have not surpassed predicted levels and various price differentials are beginning to be regulated automatically. The overall situation is a good one. To push reforms forward, however, the next step should be to solve three problems:

The first is the seasonal contradiction between pig production and pork sales. The peak slaughter season corresponds to the slow period in sales. There has been an acute contradiction in pork circulation for a long time, which is one of the direct causes of the difficulties peasants in many areas have had in selling pigs in recent years. It should, therefore, be solved from both the production and circulation areas: (1) The decentralized pattern of pig raising through household sideline production determines the seasonality of inventory replacement and slaughter. Moreover, there are problems in improvement of the management of pig raising and in shortening their growing periods. For this reason, we must change these traditional production methods and strive to assist and encourage the peasants to develop specialized raising households, contractual raising farms, and so on. (2) Improve the management of pig raising and switch from seasonal to year-round parturition. (3) Open up seasonal price differentials and encourage storage (commercial storage and production storage), processing, and canning.

Second, there is a structural contradiction between meat supply and consumption. Supplies of lean meat cannot meet demand and we cannot deal with overstocks of fat meat. This contradiction also cannot be solved merely by deregulating pork prices. Basically speaking, this involves improvement of pig varieties and encouraging the peasants to raise lean pigs. According to analysis, there are four reasons behind the delay in development of lean pigs: (1) Improvement of varieties cannot keep pace, which has led to

extreme shortages in pig varieties; (2) Feed supplies cannot keep pace and several problems exist in the areas of mixing and supply services; (3) Management of pig raising cannot keep pace. Trial raising stages may be successful but after being distributed to households they raise fat pigs; (4) Backward grade inspection methods in purchasing work and the poor quality of purchasing personnel. Disputes often arise during purchasing when setting grades, which has affected the peasants' enthusiasm to change the types of pigs. The current method of setting prices according to grades for commodity pigs still encourages the peasants to raise large, fat pigs. This means that this problem cannot be solved in the short run. Two things can be done now, however: First, in purchasing, "setting grades according to the meat output rate and setting prices according to net weight" should be changed to "setting grades according to net weight and setting grades according to the meat output rate," and "setting grades according to optimum net weight." The optimum net weight should be determined in accordance with local conditions and cannot be set indiscriminately. In Jiangsu, for example, it can be set at 130 to 150 jin, and at 180 to 200 jin in the northeast. Price differentials for each grade should be opened up as appropriate. I propose that the 0.07 yuan per jin higher purchase price paid for lean pigs compared with regular pigs be increased to 0.15 yuan. Second, in production, I propose that commodity pig base areas be established. Animal husbandry, commercial and management departments should match up closely with base area construction and change the results quickly for pig types in base area counties. According to a survey in Henan, lean pigs accounted for only 10 percent of the 50,000 pigs purchased in the province. The figure for 11 base-area counties matched with foreign trade departments was 50 percent.

Third, there are multiple circulation channels and the guiding role of state run enterprises. After purchase prices for pigs were deregulated, there were obvious drops in the purchase and sales prices of state run food product departments in most regions. Competition is weak and markets at the county level and below basically have become dominated by individual merchants. The failure to open up channels in some large and medium sized cities means that some individual merchants do not dare to go into the cities, so there has been no obvious improvement in the supply and demand situation. What should be done about circulation channels for pigs in the future? Many methods should be used to encourage individual slaughtering households to go to the cities. Individual households have three fears concerning going to the cities at present: excessive regulation, excessive fee collection, and an inability to handle the meat that is left over in the cities. For this reason, I propose that they be given specific preferential treatment in fee collection and that disease inspection work be improved.

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19 March 1986

BEIJING

## EGGS, POULTRY PRODUCTION, SALES ASSESSED

## Egg, Poultry Supply, Prices

Beijing ZHONGGUO CUNZHEN BAIYEXINXI BAO in Chinese 29 Sep 85 p 1

[Article by Zhang Zheng [1728 2398]: "Estimate of Poultry and Egg Production and Sales for the End of This Year and the Early Part of Next Year; Supply in Most Provinces Will Tighten Up While Prices Will Rise"]

[Text] Recently, relevant departments held a meeting in Zhenjiang on the distribution of pork and egg products throughout the country. The situation regarding the supply and demand of poultry and egg products for the period from late 1985 to early 1986 has been estimated as follows:

1. The Supply of Poultry and Eggs in Most Provinces Will Be Fairly Tight: Judging from the supply channels of the state-managed food departments, we know that because of the decrease in the reserve stock of eggs, their supply will also be lowered. By the end of August 1985, the reserve stock of eggs in the whole country was only 246.51 million jin, compared with 326.95 million jin during the same period in 1984. Moreover, the egg supply was already a serious concern in 1984, and now the reserve stock of 1985 has fallen 24.6 percent in comparison with the same period in 1984. In some provinces, the egg reserve stock in 1985 had fallen when compared with the same period in 1984. These provinces include Henan with a drop of 25 percent in its reserve stock of commercial eggs, 42 percent in Hebei, and 57.2 percent in Shandong Province. Thus, the shortage of supply will be sharpened even more during the season of slow growth. As for other channels of supply, many provinces during 1985 have lowered their stock of poultry, and this would naturally lead to a diminished supply. This situation was caused by "the difficulty of selling eggs" in 1985 when there was a season of particularly fast production of eggs. In Zhejiang Province, the hatched chickens and ducklings in spring of 1985 totaled only one-half the quantity of the year before, with a drop between 2.5 and 3 million in the province's total reserve duck stock when compared with 1984. By the end of June the reserve chicken stock in Shaanxi Province had fallen 25 percent compared with 1984. Moreover, it has been estimated that by the end of 1985 in the same province, the supply will fall 40 percent compared with the beginning of the year. In Shandong Province, hatched poultry decreased by 50 million, 21 percent compared with 1984; by the end of May, 40 percent of all the hens in the province had been killed.

2. A Rise in Prices of Poultry and Eggs Will Prevail Everywhere: Because of the shortage in supply resources, since reserve stocks of both poultry and eggs in some provinces has fallen in comparison with 1984, there will be an inevitable rise in prices of both poultry and eggs. At the same time, it has also been estimated that even in those provinces where there was an increase in poultry reserve stocks in 1985 in comparison with 1984 (for example, increase of 8.8 percent in Fujian Province, 13.4 percent in Henan, and 41 percent in Jiangsu), the rise in prices of both poultry and eggs when compared with 1984 will be considerable. This is because: 1) there was a slow growth season in eggs at the beginning of 1984 with the hens producing eggs at a relatively low rate; 2) with the rise in living standards among the farmers, their own increased consumption of eggs led to a diminished supply at the market; 3) with the comparatively greater rise in prices of pork, beef, mutton, and lamb, the people have increasingly turned toward poultry and eggs for their purchases; 4) a sudden increase in consumption during the New Year and the spring holidays; 5) the gradual increase in the price of poultry feed, which is likely to continue, has led to increased cost in raising chickens; 6) price increases caused by fulfilling demands in other provinces because products will flow from those provinces which have more supply to others with less. According to estimates by relevant departments, by the end of 1985, the price of eggs from state-run facilities in Beijing will rise to more than 1.60 yuan per jin, 1.80 yuan in Tianjin, and in Sichuan over 2.00 yuan per 10 eggs.

#### Analysis of Egg Market

Beijing ZHONGGUO CUNZHEN BAIYEXINXI BAO in Chinese 29 Sep 85 p 1

[Article by Xiao Rong [5135 1369]: "Analysis of Nationwide Poultry and Egg Market for Last Half of Year; Volume of State Procurement Decreases, Volume Traded at Rural Fairs Grows; Egg Prices Unstable"]

[Text] After the changes made in the policy of unified procurement and sales in 1985, some new trends have appeared in the nationwide poultry and eggs market. At the same time, new problems have also arisen. If these new problems are not dealt with, then not only will the market supply of poultry be adversely affected, but the development of the poultry-raising industry will be hindered.

1. Volume of Fresh Eggs Procured by State-Run Commercial Sector Has Decreased: During the first half of 1985, the quantities of eggs purchased by various commercial sectors throughout the country fell. According to the latest figures made available by the Ministry of Commerce, the quantity of eggs procured nationwide from January to August 1985 was 1,041,630,000 jin, a drop of 26.78 percent compared with the same period in 1984. In Shandong Province, 31.33 million jin of eggs were procured during the first half of the same year, a drop of 55 percent; in Henan Province, the procured amount for the same period was 77.71 million jin, a drop of 38.6 percent; and in Guangdong Province, the drop was 355.4 percent.

The reasons for the drop in the quantity of the procured eggs were: a) The unified procurement and sales system has been changed to multichannel management. b) In the matter of procurement prices, the commercial sections are often at odds with the producers. Take Beijing as an example. In June 1985, because the procurement price was low, many poultry producers sent their eggs outside the city in order to sell them at higher prices. As a result, there was a temporary shortage of eggs in Beijing itself. In 2 weeks 4.7 million jin of eggs were sent out. c) Because the system of state subsidies has been abolished, the commercial sector lacks positive management force.

2. Pricing Instability Caused by Proportionately Large-Scale Commercial Transactions of Agricultural Products: Because of the decreased amount that was being procured by the state-managed commercial sector, much larger quantities of eggs have been sent to the market to be sold commercially. During the first season of 1985, the quantities of poultry and eggs sold in the large and medium-sized urban markets throughout the country increased 50 to 100 percent when compared with the same period in 1984. At the same time, the quantities of poultry and eggs purchased by the people in these markets also increased 20 to 40 percent in comparison with 1984. During the first half of 1985, the quantity of eggs sold in the markets increased 57 percent in comparison with the same period in 1984.

The level of pricing of eggs that are to be sold commercially at markets is completely controlled by the pricing rhythm. During the period of fast egg production, when egg prices keep falling, the price might be as low as below 0.80 yuan in some provinces. Immediately following this period of "difficulty in selling eggs," there might be a season of slow egg production leading, therefore, to continual rises in egg prices. The fluctuation of egg prices in agricultural markets thus actively influences not only the producers themselves, but benefits to consumers may also be adversely affected. Under these circumstances, the state-managed commercial sector should make use of its position in appropriate ways (such as, storing, transporting, or processing eggs), to stabilize both the market for and the price of eggs. Judging from what happened during the first half of 1985, the state-managed commercial sector did not fully utilize its leadership position.

#### Market Price Changes, Poultry Production

Beijing ZHONGGUO CUNZHEN BAIYEXINXI BAO in Chinese 29 Sep 85 p 1

[Article by Dan Changhao [0830 1504 3185] of Beijing Agricultural College]

[Text] During the spring of 1985, the market prices of eggs in many areas had fallen, while at the same time, feed prices rose. As a result, many chicken-raising households did not allow their chickens to mature; instead they slaughtered their egg-producing hens prematurely, thus lowering the total quantity of hatched chickens for that season. However, during the period from late summer to early autumn in the same year, egg prices rose, exceeding levels of the same period in 1984. This situation was caused in general by a number of factors:

1. Simultaneous Concentration of Egg Production and Poultry Increases: During the last few years, the relatively higher profit margin in poultry raising led to increases in the number of poultry that were raised by state-run, collective, or individual units. Because of the seasonal nature of egg production, the period of growth is concentrated during spring, and since eggs cannot be stored for long periods, they had to be sold at lower prices by their producers.

2. State-Run Shops No Longer Sell Eggs: With the pricing reform that was instituted in the large and medium-sized cities during April and May 1985, the prices of nonstaple foods and feed have risen. As a result, many state-run shops in these cities stopped selling eggs for fear of incurring losses, which led to a temporary disjuncture in circulation.

3. Consumption Patterns Caused by Seasonal Factors and the Psychology of Consumers: During the summer, most people incline toward less heavy foods, thus leading to a decline in egg consumption.

Thus, from now on development should be carried out along these lines:

1. The Demand in Society for Poultry Products Will be Increasing Annually: Therefore poultry raising should be developed not only for the availability of eggs but also for the fowl themselves.

2. As Competition in the Poultry Industry Increases, Profit Margins Will Shrink: The general profit margin of poultry raising abroad is around 10 percent. Because of the rise in grain prices, feed prices will also increase. Therefore, new technology should be used to reduce production costs on the one hand, and also to expand the scale of production. Only by increasing sales of these products with their low profit margins, will poultry producers be able to maintain a competitiveness.

3. Prices Will Become More Reasonable as the Supply of Poultry Used for Breeding Stabilizes: Because of the lack of structure in the breeding of poultry, the lag in development of the transportation system, and the mixing of poultry of different species, there is still a tendency to use commercial stock instead of relying on self-breeding. In addition, an emphasis on the blind importance of poultry species might cause neglect in their care and feeding. However, with the introduction of more poultry species and increases in the raising of poultry for breeding, the supply of such poultry will become more regular and, therefore, prices will become more reasonable.

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FUJIAN

### 3-D AGRICULTURAL TECHNOLOGY DEVELOPING RAPIDLY

Beijing NONGYE GONGCHENG [AGRICULTURAL ENGINEERING] in Chinese No 6, 5 Dec 86 pp 6-7

[Article by Chen Feitian [7115 7378 1131] of the Fujian Provincial Agricultural Research Center: "Three-Dimensional Agricultural Technology in Fujian Developing Rapidly"]

[Text] When we speak of 3-D agricultural technology, we mean, on the basis of inheriting and carrying on China's excellent agricultural tradition, the wide use of modern agricultural technology to carry out intensive cultivation, making full use of space and light, heat and water resources, and integrating in ingenious ways the cultivation of plants and microorganisms and the rearing of animals. This will set up an ecological system with many commensal species, multilevel cooperation, and multistep cycles, organically uniting the benefits to the ecology, economy, and society so as to find relatively large material yields and the greatest overall benefits.

At present, facing the challenges of the world's new technological revolution, agriculture in Fujian should be revived, agricultural science and technology should make new breakthroughs; to do this we should stress the development of 3-D agricultural technology as an important strategic measure in the revival of Fujian's agriculture. This is because: 1) Fujian is between mountains and the sea, straddling the middle and southern semitropics; there is enough heat and plentiful rain, both coming at the same time, the frost-free period is long and the four seasons are always green, so we should, based on continuing promotion of agricultural traditions such as interplanting and intercropping, actively develop 3-D agricultural technology, improve the light-energy-utilization rate and the land-production rate, so as to take full advantage of Fujian's excellent weather and resources. 2) Fujian has many varied ecosystems and a vast number of different organisms, each with different demands on the environment. They provide ample biological resources for the rational structuring of 3-D agriculture. 3) Fujian has many people, little farmland, and a bountiful labor force, conditions allowing labor-intensive, technology-intensive, high efficiency 3-D agriculture, in which one piece of land or water has many uses, so that the limited amount of land and water can produce even more and better products. 4) The peasant masses in Fujian have the tradition of performing farmwork meticulously and have abundant experience in interplanting, intercropping, symbiosis and mixed animal raising.

From the above, we can see that the development of 3-D agriculture in Fujian is not only necessary, it is also possible. Fujian has stated that it will stress the development of 3-D agricultural technology as the top priority and has called for research in implementing structural models of 3-D agriculture and comprehensive use. Establishing 3-D agricultural technology with Fujian's characteristics is a necessity for doubling production, a necessity for achieving prosperity, and is also a necessity for developing ecological agriculture and scientific agriculture. Fujian's 3-D agricultural technology has the following types:

**3-D Use of Space:** Based on the different growth characteristics of different species, this is the full use of the "space differences" and "time differences" in their growth processes to, by a variety of reasonable means, form a 3-D production structure composed of many species and many levels.

**1. On Farmland, There Are Primarily Four Different Models:**

**A. Canefield 3-D structural model:** While sugarcane is in the seedling stage, interplant soybeans, tomatoes, eggplant, and green manure; in the later stages of sugarcane production, use the rough sugarcane stalks to make frameworks for planting mushrooms, Xianggu mushrooms, muser, and other edible fungi.

**B. Sweet potato structural model:** When sweet potatoes are seedlings, the utilization rate for the space above ground is rather low; while creating cultivation techniques to achieve "10,000 jin of sweet potatoes," we can practise "3-D triple interplanting in sweet potato fields," which is interplanting both soybeans and peanuts in the sweet potato patches, fully using the space above the ground and improving the light and heat utilization rate.

**C. Rice paddy structural model:** Peasants in Fujian have long had the tradition of raising fish and growing duckweed in rice paddies and growing beans on the ridges between fields. Since 1983, scientific and technical personnel and peasants in Fujian have ingeniously united all three, creating the paddy rice 3-D structural model for "rice, duckweed, fish and bean" symbiosis. This has reformed the monocultural structure of rice paddies and had a good effect on the farmland ecological system. Usually about 12 percent of 1 mu of land is dug up to make fish holes and channels; the wide and narrow rows of the "two dragons leaving the sea" model are used, which can increase the rice yield by about 10 percent and bring in about 100 jin of fish. In addition, growing beans on the field ridges and growing lotus in the water channels can increase income by several dozen yuan; the total increased net profit for 1 mu can be more than 100 yuan. In this way, the duckweed grown can be both fish bait and fertilizer; the fish can eat weeds and insect pests, and fish manure can fertilize fields; planting beans on the field ridges can both control the field ridge weeds and fully use the space on field ridges; the bean flowers and leaves are also fish feed and the bean stalks can also be used as fertilizer or feed.

D. Farmhouse 3-D structural model: Fully use the space in a narrow and small farmhouse's courtyard, various patches of land, roof, porch, beneath trees, and under the eaves to develop appropriate farmhouse plant and animal production. For example, in developing flower production, the flowers can be distributed in different spaces according to their different characteristics. This both beautifies the environment and increases the economic income. Some homes use the ponds around the house to practice the multilevel comprehensive use of "water, land, and air:" lotus roots are planted under water, fish are raised in the water, duckweed grows on the water, fruits are planted by the pond and flowers under the trees, and finally, in the space above the pond, trellises are built to grow melons. This results in comprehensive benefits.

2. In Mountain Forest Areas There Are Also Principally Four Different Models:

A. Mountain forest 3-D structural model: Develop broadleaf forests and tropical and semitropical commercial forests, principally consisting of fir, pine and bamboo, and create mixed forests of different forest types. At the same time, develop animal grazing in the forest and intercropping and interplanting of forest and crops; integrate trees, shrubs, and grass, and integrate tall, medium, and short. This will provide timber forests with longterm benefits and commercial forests with middle-term benefits, as well as short-term benefits, such as cash crops, animal products, edible fungi, and various famous and expensive medicinal materials. This will achieve the satisfactory results of multiple use of the mountain, using short-term benefits to provide long-term ones, and making full use of the land.

B. Mountain orchard 3-D structural model: The mountains and hills in southern and central Fujian are suited to growing famous fruit trees such as the longan and litchie, which have long life cycles and grow to great heights. In the early period of their growth it is possible to interplant fruit trees, such as peach or plum, which have relatively short life cycles and whose crowns are not very high; then interplant beneath the trees annual plants, such as peanut, soybean, medicinal herbs, vegetables, and green manures. This multilevel 3-D interplanting has a very good effort on improving the orchard cover rate, promoting a dense orchard canopy, avoiding soil erosion, preventing weed growth and improving soil fertility.

C. Coastal sand dune windbreak forest 3-D structural model: Fujian's coastline of more than 3,300 km has many sandy beaches, where the severe damage from blowing sand has made it difficult to grow farm crops. Since planting *Casuarina equisetifolia* in windbreaks, the ecological environment has been greatly improved. In the *Casuarina equisetifolia* windbreak networks in Changle (Hunan), Jiangtian, and Wenwusha townships, peasants have planted citrus trees, and among the citrus they have interplanted watermelons, peanuts, soybeans, sweet potatoes, asparagus, and green manure. This both conserves the water and soil and improves the soil fertility, creating the miraculous growth of citrus on sandy beaches.

D. Southern Fujian rubber and tea 3-D structural model: This means planting tea bushes in rubber tree groves. This type of structure increases

the layers of artificial plant cover and the shade coverage rate, reducing the amount of direct solar radiation, lowering the intensity of transpiration, raising the solar energy usage rate, improving the microclimate, and promoting better growth of rubber and tea. Intercropped rubber trees are sturdier and taller than those planted as a monocrop; covered by the rubber grove, the tea germination density is higher, the leaves are large, the nodes are finely spaced, and the quality is good.

### 3. There Are Two Principal Models of 3-D Breeding in Salt- and Freshwater

A. Freshwater 3-D structural model: This has been a traditional custom in Fujian. It is mainly 3-D raising of fish at different levels, based on the different needs for light and food of different kinds of fish. Usually there are four levels; Moorish idol are raised in the upper level, carp in the middle level, crucian carp in the lower level, and eels, catfish, snails, and crabs in the bottom level. Each kind of fish is raised in certain proportions, so that they can live together, coexist, use each other, and promote each other.

B. Shallow sea 3-D breeding structural model: Coastal fishermen have discovered many multilevel 3-D breeding techniques in their seawater-breeding production, so that one body of water has many uses and the results are improved. For example, Chen Yongshou [7115 3057 1108] in Shajiang Township in Xiapu County has driven piles to set up frameworks for raising laver in shallow seawater; in the upper level of water beneath the frameworks he raises seaweed; in the lower level he raises mussels; from the end he hangs baskets and fine mesh for catching fish. In this way he catches fish, shrimp, and crabs, and also helps fix the seaweed ropes, achieving multiple use of the sea. The per-mu output value can be 3,088 yuan, which is an excellent economic result.

Use of the Food Chain Cycle: The food chain is formed according to the nutritional supply-demand relationships among plants and animals. Starting with the ecological system, it joins together different species and different levels to convert human, livestock, and poultry waste products, crop byproducts, and low-value forage grasses into meat, milk, poultry, and eggs; it uses many biological levels to convert these things into farm products with fairly high economic value. These economic results are much higher than in planting or raising just one product.

1) Crop byproducts (sugarcane tips, rice straw, bean stalks, sweet potato vines, etc) cyclical-use model: For example, in Putian and Xianyou counties, sugarcane tips, bagasse, and molasses are used to raise milk cows; the cow manure is used to raise mushrooms; the mushroom soil is returned to the canefields: this recycling, which fully uses the waste of byproducts, allows the close integration and comprehensive development of farming, animal husbandry, and sideline production; it achieves a triple level of results, benefiting the environment, economy, and society.

2) Livestock and poultry manure cyclical-use model: The young peasant Zhang Xiping [1728 1585 1627] of Qingyuan Township in Shouning County has contracted for 3 mu of fish ponds and a livestock and poultry farm beside

the ponds. Upstairs he raises worms and flies, downstairs he raises chickens and pigs; on the pond he raises ducks, and in the pond he raises fish; beside the pond he grows grapes and other fruits. In this way, the chicken and pig manure are used to raise the worms and flies; the worms and fly maggots are fed to chickens and ducks; pigs eat the poultry manure; fish eat the pig manure; all the fish manure from the pond is recycled; and mud from the pond is used to fertilize the fruit trees. This food-chain-cycle technology is easy to operate, there is little investment, it saves large amounts of refined feed, and the economic results are quite high; it deserves to be widely promoted.

**Compound 3-D Use Model:** This pays attention both to multilevel use of space and to the rational cyclical use of the food chain among different species. The two are tightly linked, forming an organic 3-D structure. For example, the peasant Zhang Zhanghe [1728 4545 3109] of Suian Township in Zhangpu County transformed 1.7 mu of paddy field, creating a banana, melon, vegetable, and fish "quartet." His method was to dig 4 fish-raising channels, 1.3 meters wide and 40 meters long, among the paddy fields, in which he released *Tilapia mossambica*, silver carp, grass carp, and lonjian [7893 4628] fry; on the surface of the water he grows water spinach; in the patches he has planted 250 banana trees, interplanted with vegetables or vegetable seedlings; beside the channels and patches he has put up frameworks for growing rag gourd. Currently, the bananas are growing very well and the other products are growing in balance; this has resulted in an economic income more than 10-fold what he would have gotten from just growing paddy rice.

Although there have been fairly major developments in 3-D agricultural technology in Fujian, it is still at a starting level. The development has been uneven, the structure is imperfect, the research is not thorough enough, and the results and potential are still very far from being achieved. Therefore, we still need to further organize, research, and explore. We must rely on the initiative and creativity of the peasants and make full use of their intelligence and wisdom; we must also promptly summarize the many tried-and-true methods and preliminary 3-D structural models which have appeared, systematically studying them so as to make them more systematic, scientific, and rational, and demonstrating and promoting them in the field. This will make the "small 3-D," "small choruses" and "small cycles" of individual households become "big 3-D," "big choruses" and big cycles" on a larger scale and at a higher level.

Three-D agricultural technology enters into many fields of natural, social, and economic science. Therefore, we must depend on and organize the scientific research and technical forces in each branch of science to carry out research specific to each area, uniting these forces to achieve our goals. Three-D agricultural technology is a complex comprehensive new technology. At present, the largest limiting factors are the low rural educational level and the lack of specialized scientific and technical personnel--in many newly emerging areas there are virtually none. The most pressing matter is the rapid training of technical personnel specializing in: forestry, animal husbandry and sideline production, the development and use of agricultural ecology and agricultural resources, processing of agricultural

products, horticulture and flowers, and cultivation of edible fungi; this will meet the needs of rapidly developing 3-D agricultural technology. We must certainly do a good job of researching and promoting 3-D agricultural technology, establishing and developing a 3-D agricultural technology system with Fujian's characteristics.

12919/12828

CSO: 4007/178

GUANGDONG

# CIRCULAR ISSUED ON SPRING FARMWORK

HK251719 Guangzhou Guangdong Provincial Service in Mandarin 1000 GMT 22 Feb 86

[Text] After the Spring Festival, preparations for spring farmwork have begun throughout the province. In order to properly carry out spring farming and sowing in the right season, the provincial agriculture committee issued a circular on 14 February, calling on all localities to make early preparations for spring farmwork.

1. In accordance with the spirit of this year's Document No 1 from the central leadership and the guiding thinking of the provincial CPC committee and government, that is, maintaining stability on the whole while making small readjustments, the province must first stabilize the existing grain-growing areas. All localities must examine and implement the plan for growing early rice, the grain-growing area in particular, so as to lay down a good foundation for this year's grain increase.
2. It is necessary to grasp rounding-off work and coordination projects in irrigation and water conservancy and to check and accept in an all round way, water conservancy projects carried out from last year's winter to this year's spring. Unfinished projects must be completed as soon as possible. It is particularly necessary to grasp the construction of those projects which can yield economic results in the current year or the current farming season, so that they can play their role at an early date. According to weather forecasts a cold spring may occur in the province. All localities must make good preparations for preventing and fighting the cold spring so as to ensure the smooth progress of spring farming and sowing.
3. In cooperation with the departments concerned, all localities must properly allocate means of agricultural production as soon as possible, particularly seeds, chemical fertilizer, pesticide, and plastic film for agricultural use. Under the circumstance of shortage of chemical fertilizer this year, all localities must strive to import more chemical fertilizer and mobilize the masses to collect as much manure as possible.
4. It is necessary to open all avenues for developing production. People in mountainous areas must develop afforestation and grow fruits, and people in coastal areas must develop aquatic breeding in a planned way and step by step.

5. It is necessary to strengthen leadership over spring farmwork. All localities must organize cadres to go deep into grassroots to learn about the implementation of this year's central leadership Document No 1 and spring farming and sowing; to promptly solve existing problems; and to sum up and promote new experiences. Relevant units of the province's agricultural departments will soon dispatch work teams to all localities.

/6662

CSO: 4007/298

19 March 1986

## GUANGDONG

## DECISION ON ACCELERATING AFFORESTATION

Guangzhou NANFANG RIBAO in Chinese 2 Dec 85 pp 1, 2

[Article: "Decision of the Guangdong CPC Committee and Guangdong Provincial People's Government on Accelerating Afforestation Throughout the Province (19 November 1985)"]

[Text] To achieve the strategic task of afforesting Guangdong in 10 years, primary leaders in CPC committees and the government at all levels must focus on the question themselves. Beginning in 1986, we must afforest 10 million mu each year in addition to sealing off mountain passes for cultivation of forests and strive to increase the afforested area in Guangdong from the present 80 million mu to 150 million mu within 10 years, to increase reserves from 220 million cubic meters to 360 million cubic meters, and to increase the forest coverage rate from 26.7 percent to 47.4 percent. Conscientious plans should be made in accordance with local conditions.

The Guangdong Province CPC Committee and Guangdong Provincial People's Government issued a decision on 19 November concerning acceleration of afforestation throughout the province. The text of the decision is as follows:

Afforestation of the Chinese motherland is a magnificent enterprise to create wealth for our descendants and a basic national policy. Moving as quickly as possible to afforest Guangdong and establish an excellent natural environment is an urgent and strategic task for guaranteeing stable and high output in agriculture and for promoting construction of material and spiritual civilization. It also is a duty-bound historical imperative placed upon us by the party and the people.

Since the 3d Plenum of the 11th CPC Central Committee, through adherence to the CPC Central Committee Document No 1 and the "Forestry Law," Guangdong developed the "three determinations" (specifying forest rights, delineating private hillsides, and determining production responsibility systems) and a new situation appeared in afforestation work. The area afforested each year in Guangdong over the last 2 years has reached 10 million mu, and compulsory afforestation has grown year after year. Quality has continued to improve, the amount of forest cutting has been controlled, the timber market has been enlivened, the contradiction between supply and demand has been alleviated, and the income of foresters has increased.

There still are some prominent problems in afforestation at present, however: One is that some comrades do not have a serious understanding of the great strategic significance of afforestation and have not placed afforestation in an important position. The second is that the phenomenon of uncontrolled cutting and clearing has not been effectively prevented, management of timber markets is rather disorganized, some have taken opportunities to engage in covert unified purchasing, fees and fines are collected in a chaotic manner, and the interests of the masses have been damaged. The third is that forest resources have declined and remain in a state of excessive cutting, and there have been reductions in afforested area and forest reserves. Guangdong also has 58 million mu of barren hillsides suited to forests and a large amount of wasteland. The "four alongsides" have not been afforested and many areas have failed to build up farmland tree networks and coastal shelter forests.

To adapt to the needs of the four modernizations, accelerate the pace of afforestation, and afforest Guangdong as quickly as possible, we are making the following special decisions:

#### 1. Strengthen Leadership, Mobilize the Entire Province

To complete the strategic task of afforesting all of Guangdong within 10 years, party committees and governments at all levels should strengthen leadership, primary leaders should take a personal interest, and responsible cadres should practice specialized administration. Party committees and governments should treat afforestation as the order of the day, carry out research and investigations once or twice each year, and focus on its completion. Survey research should be strengthened and there should be guidance by categories to assure that all principles and policies related to afforestation are implemented thoroughly. Afforestation committees as well as forest and park organs should be perfected and given a full complement of personnel to permit each to perform their functions to the fullest. The CPC Central Committee and State Council pointed out quite awhile ago that: "The task of planting trees and grass to afforest the motherland should be placed on the shoulders of CPC committees and governments at all levels and on the leading cadres of all units. Starting now, all leading cadres in the party and government at all levels and in all areas should lead the way in planting trees and grass and they should conform to state decisions to focus on this several times each year to achieve a true solution to the problems that exist in their work and guarantee the completion or surpassing of the quality and quantity aspects of afforestation tasks within their own regions and units. This should be treated as a system and become part of cadre examination." We certainly must adhere to the spirit of this direction. Afforestation contractual responsibility for cadres should be established at the county (city), district and township levels. Praise and awards should be given to those with obvious achievements in afforestation, and leadership responsibility should be sought out for those who delay or do not complete afforestation. Leaders who fail to prevent uncontrolled cutting and clearing or arson and who neglect their duties and create serious losses should be

dealt with severely. All levels of government should provide the necessary manpower, materials and finances needed for afforestation to solve problems in afforestation as quickly as possible.

To accelerate afforestation of Guangdong as quickly as possible, the entire province should undertake intensive and lasting propaganda and education to mobilize the masses so that all the people in Guangdong understand that everyone is responsible for afforestation, that they participate actively in afforestation, compulsory afforestation, planting commemorative trees and forests and other such activities, and that they voluntarily make a contribution to speeding up afforestation in Guangdong.

## II. Be Conscientious in Making Good Plans and Strive To Achieve Basic Afforestation of Barren Hillsides and Wasteland Suited to Forests and Areas That Can Be Afforested Throughout Guangdong Within 10 Years

Guangdong's primary afforestation tasks during the Seventh 5-Year Plan are as follows: Mountainous regions should afforest at least 50 percent of barren hillsides and wasteland that is suited to forests but which has not yet been afforested. Regions with serious water loss and soil erosion problems should achieve basic control of at least 60 percent of collapsed hillsides and implement comprehensive sealing off of mountain passes for forest cultivation. Hilly regions should plant trees and orchards on at least 70 percent of the barren hillsides and wasteland suited to the planting of trees and orchards. Plains and coastal regions should achieve afforested networks on at least 80 percent of the barren hillsides suitable for forests and on beaches, levees and the "four alongsides." Those counties with few barren hillsides and little wasteland should complete their afforestation tasks within the next 2 to 3 years. In the cities, trees, orchards, grass and flowers should be planted in the appropriate areas to achieve afforestation according to local conditions. The concrete requirements are: beginning in 1986, 10 million mu must be afforested each year and, in addition to the sealing off of mountain passes for cultivating forests, we should strive to increase the afforested area in Guangdong from the present 80 million mu to 150 million mu, to increase reserves from 210 million cubic meters to 360 million cubic meters, and to increase the forest coverage rate from 26.7 to 47.4 percent. All areas must be conscientious in making good plans according to these requirements and adapt to local conditions according to the natural conditions and actual situation in their own areas.

Mountainous regions, especially high and remote mountainous regions, mainly should use aerial seeding and the sealing off of mountain passes for forest cultivation. In addition, the focus should be placed on developing artificial afforestation and adaptation to local conditions for planting trees, bamboo, fruit trees, tea plants, medicinal plants and palm trees while striving to develop economic diversification, integrate strong and weak points, and use the weak points to develop the strong ones. Use aerial seeding, closure of areas, management and afforestation to build up a forest structure that focuses on commercial forests and economic forests. Regions with hydropower should strive to develop small-scale hydropower. Areas with water loss and soil erosion should practice comprehensive control to integrate trees, bushes and

grass, to integrate water and soil conservation forests, commercial forests and economic forests and focus on biological control projects centered on the planting of trees and grass.

Hilly areas and plains should focus on artificial plantings of fuel forests and economic forests and improve economic results to plant trees, bamboo, fruit trees, rubber plants, sunflowers, medicinal plants, grass and flowers according to local conditions. Coastal areas and Hainan Island should focus on shelter forests and develop plants that grow in sandy beaches as appropriate to consolidate the sand and soil.

The focus in large cities, medium and small towns, and scenic tourism regions should be on park development. Afforestation and beautification should be achieved during the Seventh 5-Year Plan to create an excellent working and living environment for the residents.

Rural villages should afforest "wind and water forests." They should afforest the barren hillsides and wasteland around their village within 3 to 5 years and achieve wind resistance and water protection forests for each village.

Schools should afforest school parks to afforest and beautify senior, middle and elementary schools. Schools with the proper conditions should make rational distributions of tree and grass planting tasks when new students enroll to assign responsibility for planting and survival and form a system.

All departments, especially railway, highway, shipping, hydropower, reclamation, coal, metallurgical and petroleum departments as well as the military and others should make good plans and collect their own special funds to afforest special purpose forests and to achieve total afforestation of barren hillsides and wasteland suited to forests and the "four alongsides" within the scope of their departmental jurisdiction within 3 to 5 years.

In addition, all of society should be mobilized to develop activities to plant commemorative forests, advocate the planting of children's forests, young people's forests, militia forests, [military] camp region forests, March 8 [International Working Women's Day] forests, school parks and various other types of forests.

Afforestation should be concerned with quantity and even more with quality, afforesting an area and then completing it, and prevent precipitous action and formalism.

### III. Observe the Forest Law, Further Implement Forestry Policies

The "Forest Law" is a law for developing forestry in China, accelerating afforestation of our territory and for creating wealth for future generations, and it protects the legal rights of the state, collectives and individuals engaged in forestry. If we wish to accelerate the pace of afforestation in China, we must strive to do propaganda and implement the Forest Law so that the cadres and masses know about the law, understand the law and respect the law and

so that they are resolute in controlling forests according to law. Timely punishment should be given to those violators who destroy forests.

Disputes over mountainous forests that are not resolved in the "three determinations" for forests should continue to be addressed. In places where private hillsides have been allocated in an overly scattered fashion, there should be appropriate readjustment under conditions of voluntarism and mutual benefits to concentrate and join areas and facilitate administration. People's governments in all counties should work quickly to issue private hillside permits to peasant households. Private hillsides should be afforested quickly within 2 or 3 years. In those cases where afforestation has not been carried out within the allocated time, they should revert to the collectives for other arrangements. Delineation of the area of private hillsides can be done in accordance with the principle of favoring the development of production, and relaxed further on the original foundation in accordance with the requests of the masses. Contractual responsibility systems should be perfected further for afforestation, forest cultivation and forest protection, with clear stipulation of responsibilities, rights and benefits to guarantee the legal rights of mountain forest managers.

Afforestation should be an important component of urban construction. When submitting housing construction plans, urban units also should submit afforestation plans to afforestation commissions and arrange for 1 to 5 percent of total capital construction investments to serve as an afforestation fund (to be used by the unit itself). The actual methods should be studied and determined by urban construction departments and afforestation commissions. Completion of capital construction projects should be accompanied by inspection of afforestation projects.

To prevent water loss and soil erosion, we must prohibit reclamation on hillsides with slopes in excess of 25 degrees. Such hillsides that already have been reclaimed for planting crops should be taken out of cultivation for reversion to forests and pasture.

We must conform conscientiously with the decisions of CPC Central Committee Document No 1 to eliminate unified timber purchases in collective forests, develop timber markets, and carry out negotiated purchases and sales. In addition, we should strengthen management, conform to the principle of "strict management in the mountains, invigoration of the lowlands," and implement certification to limit cutting. With counties and state forests (and bureaus) as the unit, we must set limits on the basis of yearly cutting plans sent down by the provincial government. They only can be reduced, not added to. Legal responsibility should be sought out for anyone who exceeds yearly limits in cutting plans, and deductions for the excess amount should be made for the following year. We must strictly certify cutting and deal with uncertified cutting as destruction of forests. To achieve strict control of forest resource consumption, rural areas should strive to popularize methane and fuel-conserving stoves, and they should work to convert from burning firewood to burning straw and coal as quickly as possible. Towns at the county level and above should strive to make a conversion from firewood to coal burning within 3 to 5 years. Brick and tile kilns, lime kilns, pottery kilns and

processing plants that use wood for fuel should be reorganized and converted to burning straw and coal within a limited period of time. Factories, mines and so on that use wood as a raw material should strive to develop comprehensive utilization, conversion and substitution.

Continue to practice single administration and multiple management of timber. This involves having state forestry administration departments formulate and issue cutting permits, timber passes and voucher passes. Units and individuals that manage timber should hold industry and commerce administration licenses and cannot manage without certification. Personnel without certificates should not be permitted to go into forest regions to purchase timber.

Simplification and reorganization should be carried out for the various fees now collected in forest regions. We must be resolute in correcting the evil practices of uncontrolled price increases, chaotic fee collection, and disorganized fines to guarantee the interests of foresters. In the future, with the exception of continuing to collect Class A forest planting and cultivation funds of 9 yuan per cubic meter and the alteration fund of 10 yuan per cubic meter, the 10-percent raw lumber tax and the 3-percent forest administration and management service fee (the forest administration and management service fee is collected by counties and districts to cover the costs of cutting certificates and pass certificates) as stipulated by the state and province, no additional "local surtaxes," certificate and pass issuing procedure fees," "highway passage and station passage fees" or such should be collected. No mid-day checkpoint cutting permits or covert unified purchases should be permitted. Buying and selling cutting permits and timber transport passes should not be permitted. Diversion of forest cultivation funds and alteration funds is not permitted. No disorganized fines are permitted. Punishment for violations of the Forest Law should be carried out in strict accordance with the stipulations in the "Provisional Methods for Administrative Punishment for Violations of the Forest Law" formulated by the Ministry of Forestry.

#### IV. Actively Gather Capital, Continue To Implement Grain Subsidies for Afforestation

Forestry is a public welfare activity. It involves long production cycles, large investments and slow recovery of benefits, so it should receive the concern and assistance of all of society. Governments at all levels should include administrative expenditures for afforestation in financial plans and make proper arrangements. Beginning in 1986, the Guangdong financial administration will set aside specialized item expenditures for afforestation in mountainous areas from the additional capital inputs for mountainous areas, and it will increase the amount of loans for base area afforestation projects. Investments in capital construction in forestry handled by the Guangdong Planning Commission also should be increased on a yearly basis. Annual expenditures on afforestation in cities, prefectures and counties should not be less than 1 to 3 percent of local financial outlays, and forestry loan indices also should account for a certain proportion of bank loans for agriculture. Organizations, departments, districts and townships should take out a certain amount of capital for afforestation. Plains regions and economically

developed regions should make even greater efforts to provide financial and material assistance for afforestation activities.

To stabilize specialized forestry staffs and avoid taking the same disastrous road of forest destruction and reclamation, Guangdong has decided that beginning in 1986, 48 million jin of grain will be the yearly index for unified sales of grain for afforestation and that it will be supplied at comprehensive prices that will be issued jointly by the Guangdong Grain Bureau and the Guangdong Forestry Department at intervals of 5 years.

#### V. Strive To Develop Forestry Science and Technology and Education in Forestry, Serve To Accelerate the Pace of Afforestation

If we wish to achieve basic afforestation of all wasteland suited to forests in Guangdong and accelerate forestry development, we must strive to develop forestry science and technology and forestry education. Forestry science and technology work should make great efforts to study problems like improvement of varieties and selective breeding, rapid growth and high output, comprehensive utilization, disease and pest prevention and so on, and it should take action to develop new products, popularize new technologies and strengthen research and guidance for all types of economic forests. We should strive to popularize knowledge about forestry production techniques and extend new technologies in forestry, and we should provide scientific advice to the millions of foresters and producing units. Problems should be solved and there should be warm cooperation between forests, specialized forestry and orchard households, and associations to conduct scientific management and improve results.

We must improve conventional and spare-time education in forestry. Existing institutions of higher education in forestry should strive to improve the quality of education and gradually expand student enrollments. Cities, prefectures and counties with the proper conditions should operate forestry polytechnical schools and forestry middle schools. We should take action to create the conditions and adopt multiple layers, channels and forms to train technical backbone forces for basic level production units and do good work in training cadres and employees in forest regions.

All regions and departments must adhere to the stipulations in Guangdong CPC Committee Circular No 45 (1984) and encourage various classes of specialized technical personnel to participate in construction in mountainous areas.

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CSO: 4007/131

HEBEI

GRAIN PRODUCTION HITS ALL-TIME HIGH IN HEBEI

Shijiazhuang HEBEI RIBAO in Chinese 13 Nov 85 p 1

[Article by Xie Shiyan [6200 4258 6056] and Bao Yonghui [0545 3057 6540]:  
"Hebei Grain Production Sets All-Time High, Total Output Could Reach 38.5  
Billion Jin"]

[Text] Hebei Province has not forsaken grain production in its readjustment of the production structure. Consequently, there have been bumper crops for 4 successive years. This year it is estimated that total grain output could reach 38.5 billion jin, an all-time record and an increase of 1.1 billion jin over last year.

This year's bumper harvest of grain in Hebei is closely tied to the strong concern for grain production shown by the provincial CCP committee and the provincial government and the fine work of relevant departments. In recent years, in line with the readjustment of production, land cultivated in cotton, oil seed and cash crops have continuously increased in Hebei. Some areas on occasion have overlooked grain production, feeling that "if there's money, there is no need to worry about food." In some high-production grain areas, some have gone so far as to suggest that "if we plant rice, others will strike it rich. It isn't worth it." They fail to realize they can plant more grain. Since implementing fixed-quota grain purchase contracts this year, some areas immediately reduced grain cultivation. At the beginning of the year, relevant departments completed a study of 2,000 typical peasant families which showed that areas under grain cultivation in Hebei had been reduced by 3.61 million mu, a level below that of 6 years earlier. This situation attracted serious concern from the Hebei government. Important leading comrades of the provincial government stressed over and over again at conferences that in readjusting the production system, grain production could not be ignored and that leadership needed strengthening. Taking a cue from the provincial government, the Hebei Agriculture Department sponsored two conferences for local agricultural bureau chiefs at which they were told that areas suitable for grain cultivation were expected to place it in a prominent position during the readjustment of the production structure. At the same time, news agencies and radio networks were to step up propaganda concerning grain production. After some painstaking work, grain tillage in Hebei was prevented from decreasing on a large scale and in fact maintained the basic level of last year. That set the stage for this year's bumper crop.

Hebei is paying considerable attention to improving services in regard to grain production. After implementing the grain-purchase contract system and readjusting markets, farmers began demanding more informational and technical services. Adjusting to markets requires prediction of the future, so many farmers base a year's farming schedule on the circumstances of the previous year. Last year Hebei had a surplus of corn. What was to be done this year? Relevant departments went through various channels to obtain information that would help calculate demand for yellow and white corn on the international market. Hebei also improved its dissemination of information, so that farms were told in time that this year cotton was in surplus and that the corn market looked good. Just as expected, land under cotton tillage shrank by 20 percent and corn cultivation, which was expected to shrink by 4 million mu, in the end was reduced only some 900,000 mu. Exportable corn increased by 960 million jin over last year. Hebei has also improved service regarding the distribution of good seed strains. One important reason total output of grain increased by more than 600 million jin this year in Hebei is that a large area changed over to a superior seed. In the past, Cangzhou Prefecture predominantly used Shandong Taishan seeds; this cold-resistant strain is of poor quality, so output was low: it was not fit for growth in Cangzhou. This year they brought in a suitable, high-quality, cold-resistant winter strain from the China Agricultural Science Academy and the Beijing Agricultural Science Academy; this seed has greater resistance to freezing. Consequently, this year grain output increased in that prefecture by 300 million jin over last year. Because Wuqiao County switched to a high-quality seed and because this year's water supply was guaranteed, average wheat productivity per mu reached 520 jin, an increase of 60 jin over last year. Even the Heilong Harbor basin has never exceeded 500 jin of wheat per mu.

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## HEBEI

### ANALYSIS OF HEBEI'S AGRICULTURAL EXPORTS

Beijing ZHONGGUO CUNZHEN BAIYE XINXI BAO in Chinese 20 Nov 85 p 1

[Article by Zhen Dachen [3914 6671 6591]: "Analysis of Hebei's Agricultural Exports Market; Key Is Raising Quality, Opening Markets"]

[Text] The Hebei Agricultural Products Import and Export Corp. manages the export of commodities classified under the following 10 headings: seed oils, grains, canned food, meat products, aquatic products, egg products, fruit, vegetables, dried fruit, and sundry items. All told there are more than 100 different items. Among the commodities that yearly earn more than \$10 million from exports are corn, Chinese chestnuts, pears, shelled peanuts and red beans. Export commodities that yearly earn \$5 million or more include sesame, canned items, and live cattle. It is apparent from present circumstances that the sources for these exports are basically secure; the key is to raise quality and develop markets.

Corn: Pure yellow corn is in demand for export; off-color kernels cannot exceed 6 percent. Hebei is scheduled to export 500,000 tons this year, but sources that are up to standards are in short supply, so estimates are that only about 450,000 tons will be supplied. To direct production and guarantee sources, the China Agricultural Products Import and Export Corp. and the Hebei government have decided to establish export bases for corn in the Tangshan, Chengde and Qinhuang island areas.

Chestnuts: These are mainly exported to Japan. Each year around 25,000 tons are exported nationally; Hebei accounts for around 16,000 tons. In the last 2 years, production increased rather quickly and there was a surplus for export especially since domestic sales are not profitable for farmers. In the future, therefore, exports to North America and "eastern Europe should be expanded.

Pears: Hebei yearly produces 500,000 tons and exports 40,000 tons. Sources for these exports are not a problem; the main concern is for proper management and quality improvement.

Shelled peanuts: About 15,000 tons a year are exported. The present problem is impure varieties--there are too many small-kernel peanuts. In the future, a large-kernel variety should be developed for export to the European market.

There have been no major breakthroughs in recent years regarding the markets for various other commodities.

Live goats are a Hebei commodity with a future. The Arab countries of the Middle East are the main importers of live goats. Kuwait, Saudi Arabia, the United Arab Emirates, and North Yemen import nearly 20 million head annually, most of them from Australia, Turkey, and Syria. This year it is estimated that China will export 140,000 head, with Hebei contributing about 57,000 head. Although there are many kinds of goats in Hebei, few varieties are up to export standards. This year the 60,000 head exported were not very robust. Export demand is for a short-tailed, fat, cold-weather goat (sheep), and Mongolian goats weighing more than 30 to 35 jin. There is a set ratio between rams and ewes (generally about 4:1). In the future, growth in the goat-herding industry should lean toward fat, short-tailed sheep.

Other than that, shrimp breeding grew rapidly this year, but because bait was insufficient and unrefined, the shrimp failed to meet export standards and domestic sales are not profitable. Thus, in the future better quality feed must be secured to ensure steady growth.

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19 March 1985

## HEBEI

## STATE FARM ADMINISTRATION IMPROVES, OUTPUT UP

Shijiazhuang HEBEI RIBAO in Chinese 15 Nov 85 p 2

[Article by Lu Jizhong [6424 4949 1913]: "Hebei State Farm Administration Department Avoids Empty Rhetoric, Facing Reality; Industrial Output, Profits Up Significantly over Last Year"]

[Text] The Hebei State Farm Administration Department has altered its managerial style to a service orientation. Empty rhetoric has been reduced and reality is being faced in dealing with grassroots levels. Hence, the more than 300 state farm industrial enterprises in Hebei have continued from last year's record doubling of production and profits so that by the end of the third quarter, real total industrial output was valued at more than 170 million yuan, a 20.47-percent increase over the same period last year; profits were 28.91 million yuan, a 27.15-percent increase over last year.

Since Hebei's State Farm Administration Department established a new style of leadership and organization, the main objectives have become service and management. The principles of "seeking truth from facts, facing grassroots realities, promptly responding to enterprise needs and serving the grassroots levels" are being resolutely implemented. The former style of issuing directives "based on superficial knowledge and filled with wild promises regardless of money and materials" has been changed. Starting this year, they have helped smooth out service channels and resolutely maintain and manufacture superior products at the grassroots levels. They have been middlemen regarding production, supplies, and marketing, and have also helped solve energy and natural resource problems; they have organized the technical appraisal of products and provided economic information. The sweetened, powdered whole milk produced at Hebei's Dacaozhuang Farm Dairy Products Plant has been a top-quality product since 1983. At the beginning of August this year, while examining samples, the Hebei Quality-Control Department discovered a sudden decline in quality. They cracked down on quality control and assisted enterprise employees and cadres investigate the problem. The reason was discovered and soon after the quality of the dried milk had surpassed the original provincial standard for quality. Lutai Farm's primary cloth-spinning factory originally had only one machine in production, yet raw material was still somehow insufficient. After establishing more suppliers of resources, stimulating the factory to add three more machines, raw material was more than sufficient and profits had increased greatly. Tanghai [0781 3184] County's four farms constantly were concerned about youth waiting for employment. The Hebei State Farm Industrial Administration Department assisted them by supplying information and within 6 months a glass-fiber plant had been constructed that employed 60 youths waiting for work; the supply cannot meet the demand for the product.

HEBEI

## NEW TOBACCO SALES REGULATIONS ISSUED

Shijiazhuang HEBEI RIBAO in Chinese 28 Oct 85 p 1

[Article: "Hebei Issues New Regulations on Tobacco Monopoly"]

[Text] The Hebei provincial meeting on the tobacco monopoly was held in Shijiazhuang from 13 to 15 October. The meeting conscientiously carried out the national "Tobacco Monopoly Regulations" and "Details of Implementation," studied the suggestions on the tobacco monopoly in Hebei from concerned leading comrades in the provincial government, and summarized and exchanged their experiences; they issued new regulations which will strengthen the management of the tobacco monopoly in Hebei.

1. Conscientiously carry out the national policies on the tobacco monopoly. The national "Tobacco Monopoly Regulations" require that the cigarette market in Hebei be centrally managed by the Hebei Tobacco Corp. The purchase, distribution, allocation, and wholesaling of cigarettes and cigars is to be centrally run by the Tobacco Corp and units designed by it. Before the Tobacco Corp is established, its functions are to be performed by the Sugar, Tobacco, and Liquor Corp no other department, unit, or individual can perform these duties. For those businesses already in operations, the tobacco monopoly organs will, together with the industrial and commercial administrative and management departments, set a final date for wholesale sales, depending on the amount in stock, goods not sold by that date will be sold as retail. From now on, departments, units, or individuals engaged in wholesaling and retailing cigarettes must obtain from the local tobacco monopoly office a tobacco monopoly permit and a purchasing permit; otherwise, they will under no circumstances be allowed to engage in this business.

2. Strictly execute the national cigarette-allocation plans. The cigarette allocation plans are national command-style plans. According to the relevant regulations, the provincial Tobacco Corp centrally distributes and organizes the allocation of cigarettes brought in from other provinces according to the national plan. The regulation of cigars from other provinces is also centrally organized and implemented by the provincial Tobacco Corp. No other department, unit, or individual can purchase, on their own, cigarettes and cigars which are outside the plan from other provinces. From now each locality or city which definitely has special needs must get permission from the provincial Tobacco Corp to buy goods from other provinces. Goods may still be brought in through the original channels from other provinces and cities which span two or

more supply districts, but they cannot be sold to areas within Hebei which are not part of more than one supply district.

3. Strengthen management of the tobacco market. According to the pertinent rules of the "Regulations" and "Details," every level of departments in industrial and commercial administration, banking, and transportation should work together with the tobacco monopoly office to perform well the management, inspection, and monitoring work. In regard to the illegal production and sale of handmade cigarettes, white-paper [standard] cigarettes, and fake brand cigarettes, the purchase and sale of cigarettes and cigars which come from other provinces and are outside of the plan, violations of cigarette-price policies, and operation without a permit by departments, units, and individuals: depending on the weight of the various offenses, offenders will face criticism and education, economic sanctions, revoking of the operating license or the monopoly permit, confiscation of illegal gains, enforced sealing up of the building, even legal punishment by legal organs. When notified by the tobacco monopoly office or the industrial and commercial administrative and management office about departments, units, or individuals who have violated policy or regulations, banks will not give them loans or settle their accounts and will even cancel their bank accounts. For those who receive economic sanctions but do not pay within the prescribed time, or who without reason delay payment of fines, the money will be withheld and deposited when a withholding notice is received from the relevant department. For those who do not have shipping permits or goods-receiving permits or who ship cigarettes in and out of the province not in accordance with the Tobacco Corp's distribution plans, the transportation departments will not allow them to transport the goods and will notify the appropriate departments to deal with the offense. Units and individuals within the tobacco monopoly offices and the industrial and commercial administrative and management offices who make a significant contribution to the conscientious implementation of the "Regulations" and "Details" should be praised or awarded according to the pertinent regulations.

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HEBEI

## CHANGES IN PEASANTS' DIET SUMMARIZED

Shijiazhuang HEBEI RIBAO in Chinese 30 Oct 85 p 4

[Article by Hong Wantang [3163 8001 1016] and Zhang Jingyu [1728 2529 3768]:  
"Simple Discussion of Changes in Peasants' Food Consumption Pattern"]

[Text] In recent years, there has been an obvious improvement in the economic condition and standard of living of peasants in Hebei. In 1979, the per capita daily expenditure on consumption for peasants was only 95 yuan; by 1984 it had reached 243 yuan, an average annual increase of more than 20 percent. But from the pattern of daily expenditures, we see that most of what peasants spend on daily needs goes for food, clothing, and shelter. According to statistics, food consumption accounts for 52 percent of the entire cost of living, clothing consumption is 12 percent, and housing consumption is 14 percent. These three expenses together add up to 78 percent; only 22 percent of the cost of living goes for everyday items, cultural activities, medical care, etc. Compared with the internationally recognized Unger coefficient, food costs still comprise more than 50 percent of the cost of living in Anhui, even if we include the urban population. This shows that the current standard of living for most of Anhui's peasants also only allows them to meet basic needs.

Since the peasants' standard of living is still at the stage of meeting basic needs, the food consumption is of rather low quality and is low in nutrients, affecting the improvement of the level of health of the broad masses of peasants. Nutritionally speaking, the calories, protein, and fat provided in the daily diet eaten by everyone in Anhui are, by a reasonable standard of nutrition, from 9 percent to 60 percent lower than ordinary needs. The reason for this is the rather unsensible composition of food consumption; there is insufficient consumption of animal products high in nutrients and an excessive proportion of grains and vegetables; basically the level is still quite rudimentary.

Following the development of the rural economy, the peasants' income has continuously grown, and so the peasants' diet will inevitably improve correspondingly; the demand for nutritious foods will become bigger and bigger. In order to let the peasants' diet become more reasonable and to increase the sources of nutritious foods, we must do the following things:

1. Restructure farming. The ties between the structures of farming and food consumption are extremely close. At the present stage, foods of plant origin are the staple of the peasants' diet. Restructuring farming will have a major effect on improving the peasants' diet. In restructuring farming, we must first make sure that we implement the policy of never neglecting grain production. Based on the current realities, that China has many people, little land and rather low productive forces, for a considerable period of time in the future, the diet of peasants will still center on grains and vegetables. At the same time, nutritious foods, such as meat, eggs, and milk, are also transformed from grain, so that it is impossible to increase the amount of food derived from animals without achieving increased grain production. Second, we should expand the area of oil-bearing crops and increase edible oil yields. Oil crops not only contain abundant fats, they also contain quite a bit of vegetable proteins and also contain many vitamins essential to the human body. Actively developing oil-bearing crops can both solve the peasants' problem of insufficient absorption of protein and fat and increase their income. We should plant more high-quality grains; in particular there should be considerable development of famous, special, small, and miscellaneous grains in order to meet the new needs of the peasants' food consumption.

2. We should develop the food industry and increase edible resources. The foods people need do not come just from agriculture, they also come from industrial departments. The food industry not only can encourage faster and better conversion of grain, it can also scientifically process the formerly inedible materials to remove poison and change the flavor, changing them into edible foods. For example, every year Hebei produces about 2.5 billion jin of peanut, cottonseed, soybean, and sesame cake and residue. The cake and residue have a protein content ranging from 20 to 50 percent. Because equipment and technology in the food-processing industry are relatively backward, these cakes and residue cannot be used comprehensively; most of them serve as feed and fertilizer, which is an enormous waste. If we could use advanced technology in the food-processing industry to extract the protein within the cakes and residue and make it into foods rich in nutritional value, this would undoubtedly increase the sources of food.

Developing the food industry is still an important path to increasing the nutrients in food. The food-processing industry can use modern processing methods to prevent loss of nutrients during the course of processing, and can use scientific blending of the raw materials of food to change the ratio of chemical compounds and catalyze the formation of vitamins, thus raising the nutritional value of food and getting twice the result for half the effort.

The question of what sort of food-consumption patterns should be established in the future deserves great consideration. We feel that, for a fairly long period in the immediate future, establishing a food-consumption pattern that "centers on consumption of grain and vegetables and is supplemented by consumption of animal food products" is best suited to the actual condition of China's rural economy and is feasible.

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HEBEI

REASON GIVEN FOR DECLINE IN NUMBER OF SHEEP

Beijing ZHONGGUO CUNZHEN BAIYE XINXI BAO in Chinese 5 Nov 85 p 3

[Article by Fu Lizi (0102 4539 180/): "In Hebei, Amount of Sheep Decreasing Annually, Market Supply Worsens Daily; Mountains Closed Off for Reforestation, Institutional Paralysis, Measures Unfavorable"]

[Text] Hebei currently has more than 62 million mu of grass-covered mountains and slopes, of which 43.58 million mu can be used. The annual output of straw from various crops is more than 30 billion jin, which provides excellent conditions for developing sheep production. But since 1983 the number of sheep in Hebei has gradually declined. In 1982, there were 9.15 million sheep, the number fell to 8.16 million in 1983, and in 1984 it fell again to 7.25 million. In 2 years the number of sheep fell 1.9 million, a decline of 20.7 percent. In the first half of this year the number of sheep was 570,000 less than the same period last year, a decline of 6.8 percent. Of all the counties in Hebei, the decline in the number of sheep is most serious in the major forestry counties in the Tiahang Shan and Yan Shan. In Fuping, Laiyuan, Shexian, and Chengde counties, the number of sheep has fallen by more than half in the past 3 years, so that some places have become villages without any sheep. The number of sheep is still continuing to fall in some mountainous districts now.

The decline in the number of sheep is due to a variety of causes. According to investigations, the main reason is that many prefectures have set their agricultural production policy with "forestry at the center"; they have emphasized the rate of forest cover and expanded the area of sealed-off mountains, depriving sheep of the grazing conditions they require for existence. In particular, the leaders of some counties and communes have mistakenly regarded forestry and sheep-raising as antagonistic to each other, thinking that "if we raise sheep we cannot plant trees, and if we want to plant trees we have to get rid of sheep." As a result, they have adopted measures limiting or forbidding sheep-raising. Some deal with it by setting deadlines, others collect so-called "mountain use fees" and "resources fees" when sheep are sent out to graze. In addition, since implementation of the agricultural production responsibility system, the grazing land and sheep herds in many places have been divided up among households. Because sheep-raising households have little grazing land, they cannot raise many sheep, and those households which did not want to raise sheep in the first place either sold or killed the sheep as soon as they received them. A special problem has been the institutional

streamlining of the past 2 years, in which the animal husbandry and agriculture departments have been combined in many prefectures; the leadership forces and technical services have been greatly weakened; a considerable portion of rural township veterinary stations have become paralyzed or semi-paralyzed because their income does not meet their expenses, creating a situation where no one is managing sheep production, improved breeding, and disease information and control.

The large decline in the number of sheep has begun to influence the supply of mutton in Hebei's markets. This year the price of live sheep and mutton has generally gone up; last fall the price for live sheep was about .40 yuan per jin, but now it has risen to more than .70 yuan; last year the market price for mutton was 1.20 to 1.30 yuan, but now it has gone up to 1.70 to 2.00 yuan. Furthermore, the market is not well-supplied, so that in many places it is difficult to buy mutton.

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19 March 1986

## HEBEI

## BRIEFS

AUTUMN WHEAT SOWING INCREASED--Fall wheat sowing in Hebei Province will reach 37 million mu this year, an increase of more than 1 million mu over last year. Soil moisture content is good this year, base fertilizer is sufficient and high-yield varieties are numerous. There is 10 percent more land available for planting than last year and the wheat is of universally higher quality. [Text] [Shijiazhuang HEBEI RIBAO in Chinese 18 Nov 85 p 1] 13030/13045

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HEILONGJIANG

IMPROVE DEVELOPMENT OF COMMODITY PRODUCTION

Harbin HEILONGJIANG RIBAO in Chinese 14 Nov 85 p 1

[Article: "Perfect Rural Cooperative Economy, Improve Development of Commodity Production; Provincial Rural Work Ministers' Meeting States There Are Many Forms in Heilongjiang's Countryside; Multilevel Cooperative Economy Being Perfected Daily; Cooperative Economic Networks and Socially Useful Service Systems Based on Household Management Should Be Established as Soon as Possible"]

[Text] The provincial rural work ministers' meeting concluded on 9 November. This meeting exchanged the past year's experiences in implementing locally CPC Central Committee Document No 1, and discussed the provincial central committee's draft of its "Opinions Concerning Several Problems in Perfecting the Rural Cooperative System (Draft for Discussion)"; those at the meeting gave several suggestions on how to deal with present rural work. Hou Jie [0186 2212], deputy secretary of the provincial central committee and provincial governor, spoke at the meeting.

Discussion at this meeting focused on questions of further perfecting the integration of rural centralization and decentralization in the dual-level management structure, developing diversified economic associations and developing a multilevel socially useful service system.

The meeting reaffirmed stable land-use rights, adhering to the policy that the period for land contracts should usually be more than 15 years; the limit for adjusting private plots should generally be lengthened to 15 years.

The meeting stated that at present, the diversified, multilayered cooperative economy in Heilongjiang is daily being perfected. Following the continual perfection of the output-related contract system, Heilongjiang's rural household businesses are extremely active, turning out a stream of peasant entrepreneurs, large specialized households, and specialized villages. The development of commodity production has promoted the gradual conversion of regional cooperative economies into dual-level business entities integration centralization and decentralization. Some regional cooperative economic organizations actively provide various services to household businesses.

The meeting also pointed out that the focal point in developing the cooperative economy in rural Heilongjiang has shifted into the area of circulation.

Regional cooperative economic organizations are now changing from the production type of cooperation to cooperation in production, processing, circulation, and comprehensive service. The meeting called for rural cadres at every level to actively recognize and direct this shift, and to establish as soon as possible diversified, multilevel cooperative economic networks and socially useful service systems based on household management.

The meeting believes that perfecting the rural cooperative system first requires solving two problems of awareness. First is the relationship between developing commodity production and perfecting the cooperative system. Due to the shackles of "leftist" ideology, commodity economy and socialist cooperative system became fundamentally opposed concepts. In fact, the development of socialist commodity economy and the perfection of a rural cooperative system are not contradictory. Implementation of a rural economy in which business is divided among families, with the public ownership system as the economic foundation, requires even more effective association and cooperation, in order to solve the difficulties met by peasants in expanding the scale of household business and in developing production. Perfecting the cooperative system is an objective requirement for the development of the rural commodity economy. The question is how to satisfy the peasants' demands for gradual perfection of the cooperative system according to the principles of equality, voluntary participation and mutual help and benefit. Second is the relationship between centralization and decentralization. In fact, the management of contracting households is the management of the cooperative economy, expansion of the scale of household management, and enrichment of the levels of household management; this is the important work to be done in perfecting the contract system. This is not a hurried temporary measure, but is the long-term, stable fundamental policy. So-called unified management or cooperative management is not really the simple "addition" of labor, funds, technology, materials, and other factors, and in no way is it a return to the old way of the original production teams "eating from the big pot"; it is the use of the level of unified management to solve the limitations difficult to overcome in businesses distributed among household. Not only does it not limit household businesses, it will also help peasants expand the scale of household business.

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HEILONGJIANG

DAIRY MODERNIZATION SUCCESSFUL

Harbin HEILONGJIANG RIBAO in Chinese 14 Nov 85 p 1

[Article by Wang Wenku [3769 2429 1655]: "Achievements in Stock-Raising Projects Established in Three Counties in Heilongjiang; Conversion From Traditional Dairy Industry to Modernized Dairy Industry"]

[Text] In the past several years, Heilongjiang has concentrated funds in three townships (small towns) and six livestock farms in the three counties (cities) of Anda, Duerbote and Fuyu, centering on a fundamental change in the basic conditions for developing the dairy industry. It has carried out a series of projects to bring about the conversion of the traditional dairy industry into a modernized dairy industry. This attempt has already achieved striking economic results.

Heilongjiang has vast grasslands and other natural conditions, making it well-suited for developing the dairy industry. But at present the rearing of milk cows is still basically stuck at the backward traditional level. In the summer of 1981, Heilongjiang named sites for setting up modernization projects: in Anda City, four livestock farms: Xianfeng [pioneer], Liaoyuan [prairie fire], Zhongxu [stock-breeding], and Zhongniu [cattle breeding], in Dorbod Mongol Autonomous County, Aolinxibo and Hutumo townships and the stock-breeding farm near the mountain; and in Fuyu County, Fuluzhen and the county stock-breeding farm. The investment was 46.92 million yuan. The sources of funds were: 1) loan from the International Fund for Agricultural Development; 2) provincially appropriated loans; 3) funds raised by the units setting up the projects. By the end of July this year, 33.36 million yuan of the investment had been used to build fences surrounding 94,000 mu of grasslands, artificially seed 70,000 mu of grass, improve 48,000 mu of pastures, plant 62,000 mu of silage fodder, plant 40,000 mu of grassland shelter-belt forests, and build 26,000 square meters of heated dairy barns, 38,000 cubic meters of silos, 31 drinking water towers or wells, and 2,000 square meters of breeding rooms; at the same time, 250 items of advanced technical equipment had been bought.

Establishing these projects has brought three major changes to the development of the dairy industry in these places: 1) Increased amount of forage grasses and feed. Compared to other pastures, there has been about a doubling of production in fenced pastures, a twofold increase in production in improved pastures, and a threefold increase in production with artificially planted grass. Last year 40,000 tons of forage grass were harvested, a 59 percent

increase over 1980. In spring of this year there was a serious drought, but the forage grasses in artificially planted and improved pastures were generally able to grow quite well. 2) Increased amount of milk. At the end of last year, there were 32 percent more dairy cows than in 1980. Last year the total output of fresh milk was 47 percent more than in 1980; the average output per mature cow was 4.6 tons, 0.6 tons more than in 1980. 3) Increased income. Last year the total income was 22.77 million yuan, 58 percent more than in 1980. The per capita income in the dairy industry was 378 yuan, more than twice that of 1980.

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HEILONGJIANG

NODULE BACTERIA FERTILIZER EXPERIMENTS

Harbin HEILONGJIANG RIBAO in Chinese 10 Nov 85 p 1

[Article by Shi Weixin [4258 1919 2946] and Shen Enxuan [3088 1869 5503]:  
"Heilongjiang Experimenting With Soybean Nodule Bacteria Fertilizer on Large  
Areas; Integrating Scientific Research, Extension, and Production"]

[Text] The soil and fertilizer stations of the provincial Department of Agriculture, Animal Husbandry, and Fisheries, the Soil and Fertilizer Institute of the provincial Academy of Agricultural Sciences, and the provincial No 1 Veterinary Pharmaceutical Plant have cooperative this year in more than 40 cities and counties in Heilongjiang on large-acreage experiments and demonstrations with soybean nodule bacteria, achieving heartening results.

Soybean nodule bacteria is a kind of bacteria fertilizer, using it to inoculate soybeans can promote the formation of nodules on the soybean roots, increasing its nitrogen-fixing capacity and improving the soybean yield. This measure has been used in many countries around the world. Starting in the 1950's, China used this measure with definite results, but experiments were later stopped for a time.

Heilongjiang started in 1983 to carry out experiments on and demonstrations and promotion of soybean nodule bacteria. In that year the experiments were conducted in 16 cities and counties on an area of 11,000 mu. In 1984, experiments were extended to 27 more cities and counties, on 450,000 mu.

According to statistics, in these 2 years, average per-mu soybean output increased by 28 to 35 jin and net results by 7 to 10 yuan. This year, in 45 cities and counties, the experimental area is 720,000 mu. Although Heilongjiang has been generally afflicted by fairly severe spring drought, fall waterlogging, and other natural disasters, soybeans fields in Heilongjiang using soybean nodule bacteria fertilizer increased output by more than 29.8 million jin of soybeans, a net increase in income of more than 8.9 million yuan; the average increase in output per mu was 41.2 jin and the increased net income per mu was 12.36 yuan.

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HEILONGJIANG

#### CIRCULAR ON SPRING FARMING PREPARATIONS

SK102305 Harbin Heilongjiang Provincial Service in Mandarin 2200 GMT 9 Feb 86

[Text] The provincial government recently issued a circular on preparations for plowing and sowing for this year's production. The circular calls on all localities to successfully carry out the following tasks:

1. It is necessary to widely and thoroughly publicize and implement Document No 1 of 1986 issued by the CPC Central Committee and implement the guidelines of the central and provincial rural work conferences in order for the masses of peasants to clearly understand that the party's principles and policies for rural economic reform will remain unchanged for a long time. In this way, the peasants' enthusiasm for production will be protected and further aroused, and rural economic development will be stimulated.
2. It is necessary to step up efforts to decide on the acreage to be sown to crops, sign grain purchasing contracts, and formulate plans for production techniques on the basis of the principle of guaranteeing grain areas, properly increasing the areas of high-yielding crops, and promoting a steady increase in grain production.
3. It is necessary to quickly create an upsurge in accumulating and delivering manure and strive to make this year's application of manure reach or exceed last year's level in both quantity and quality.
4. It is necessary to grasp well the collection of funds for production preparations and supply and service work. Agricultural banks should do their best to ensure the supply of funds for agricultural production, allocation of chemical fertilizer should be stepped up, farm machines and tools should be examined and repaired successfully in quality and quantity, and the method of exchanging grain for seeds should be adopted to distribute seeds as quickly as possible.
5. It is necessary to conscientiously help disaster areas and poor households in production preparations. All departments concerned should step up the formulation of plans for helping the disaster areas and poor households develop production and business, and for offering them technical and information services in order to help them attain self-reliance through production and do a good job in production preparations.

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HEILONGJIANG

BRIEFS

NEW HEILONGJIANG CULTIVATION METHOD--Harbin, 19 Feb (XINHUA)--A new cultivation method helped 247,000 peasant households in China's northernmost province of Heilongjiang reap high outputs of soya bean and wheat despite floods last year. With the new method, all processes, ranging from land preparation and seed selection to sowing, fertilizer application, field management and harvest, have optimum criterions decided in accordance with soil and weather conditions. As a result, the soya bean yield on more than 65,000 hectares averaged 2,384 kg per hectare, 554 kg more than that for conventional methods. The wheat yield on 61,000 hectares averaged 3,173 kg per hectare--980 kg more than that for conventional methods. Heilongjiang allocated 12.5 million yuan and 20,000 tons of fertilizer for farms using the new method last year. Technical courses were run for 410,000 peasants. [Text] [Beijing XINHUA in English 0642 GMT 19 Feb 86 OW] /8309

CSO: 4020/233

HUBEI

GUO ZHENQIAN DISCUSSES AGRICULTURAL ISSUES

HK220311 Wuhan Hubei Provincial Service in Mandarin '100 GMT 21 Feb 86

[Excerpts] From 14 to 19 February, the provincial government held a provincial agricultural forum in Wuchang, attended by responsible comrades from all prefectures and cities and of provincial departments concerned. Acting Governor Guo Zhenqian and Vice Governor Wang [name indistinct] spoke.

Guo Zhenqian stressed in his speech: The leaders at all levels must fully understand the important position of agriculture and tangibly strengthen leadership over it. Since the 3d Plenary Session of the 11th CPC Central Committee, a situation of flourishing development has emerged in Hubei agriculture. This fine situation was not gained easily. We must cherish it and exert every effort to consolidate and develop it.

Comrade Guo Zhenqian said: Strengthening leadership over agriculture first means implementing the policies. In light of local agricultural problems, we must promptly adopt measures and methods that will help to develop agriculture and mobilize the peasants' enthusiasm, so as to stimulate rural reforms and promote production.

Second, in the wake of the rural structural reforms, leadership methods must switch from urging people to harvest and sow, as in the past, to providing service for the grassroots and the peasants.

Third, it is necessary to organize the forces of all sectors, trades, and departments to provide vigorous support for agriculture.

On the question of readjusting the rural production structure, Comrade Guo Zhenqian said: We must advance with steady steps and work in a thoroughly sound way in readjusting the rural production structure. No matter how the structure is readjusted, the first task should always be to develop crop cultivation with the focus on grain. We must improve the grain contract purchase methods, and help the grain-growing peasants to develop production by means of revolving capital and bonus awards of chemical fertilizer. We must stabilize the prices of agricultural production materials and lighten the peasants' burden.

We must speed up the development of forestry, animal husbandry, and aquatic production, and increase their proportion in agriculture as a whole.

In readjusting the production structure, we must take advantage of Hubei's strong points in agriculture. Areas suitable for growing grain and cotton must not blindly reduce their cultivation areas. They must continue to do a good job in growing grain and cotton, and improve yields, varieties, and quality.

Guo Zhenqian said: Land is the peasants' basic production material and the basic production condition in agriculture. At present there is a serious degree of random occupation and waste of farmland in many places. This must be resolutely curbed. Places where the conditions are right should build up some more farmland, so long as soil conservation is benefited.

On the question of township enterprises, Comrade Guo Zhenqian said that Hubei made a rather late start in launching these enterprises, and their proportion of total agricultural output is still rather low. This year the enterprises should be consolidated and improved and should develop steadily. The focus should be on processing agricultural and sideline products. Areas where there are mineral deposits can organize small-scale mining, under the unified arrangements of the state. However, they must not vie with the state for resources, or damage resources. Places where the conditions are right can also undertake the manufacture of products diffused by large urban industries.

To maintain long-term and stable agricultural growth and accomplish the Seventh Five-Year Plan, we must strive to increase agricultural input while continuing to bring into play the power of the reforms. We should arm agriculture with new materials and technology and continually strengthen the reserve forces for agricultural development. At the same time we must do a good job in popularizing and applying the existing fruits of science and technology, so as to raise the scientific and technological level of agriculture.

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CSO: 4009/298

HUBEI

# AGRICULTURE, ANIMAL HUSBANDRY CONFERENCE ENDS

HK270525 Wuhan Hubei Provincial Service in Mandarin 1100 GMT 25 Feb 86

[Excerpt] The provincial work conference on agriculture and animal husbandry concluded in Wuchang this afternoon.

In the light of the guidelines of central document No 1, the meeting put forward the following guiding ideology for this year's work of the province's departments in charge of agriculture and animal husbandry: To carry out reform in depth, to make further readjustments, and to strengthen service work so as to develop the rural economy in a sound, steady, and balanced way. Meanwhile, priority must be given to conducting work in earnest in three aspects, establishing two systems, and improving management. This calls for us to make continued efforts to readjust the agricultural structure, strengthen the building of the commodity basis of agriculture and animal husbandry, promote science and technological progress, and work hard to raise the production level of agriculture and animal husbandry, as well as to establish the system of spreading agrotechniques and the system of service work, and to exercise effective control over agriculture by economic and legal means so as to ensure a sound development of agriculture and animal husbandry.

During the meeting, Vice Governor Wang Libin called on delegates to the meeting and delivered a speech. He called on all localities to continue to expand agricultural production as the foundation of the national economy, lay a solid foundation for agricultural development, increase investment in agriculture, strengthen capital construction on farmland, and intensify research work in new agrotechniques.

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CSO: 4007/298

HUNAN

FRESHWATER FISHERIES DEVELOPMENT DISCUSSED

Beijing NONGYE 'ISHU JINGJI [ECONOMICS FOR AGRICULTURAL TECHNOLOGY] in Chinese No 11, Nov 85 pp 31-34

[Article by Wang Shouren [3769 1343 0088] of the Hunan Office of the Ministry of Agriculture: "Major Problems and Policies for Dealing with Them in Hunan's Freshwater Fish Cultivation"]

[Text]

I

Hunan is known popularly as the "home of rice and fish." It has uniquely abundant natural resources for freshwater fish cultivation. One is the vastness of its surface water. The province has the four major watersheds of the Xiang, Zi, Yuan, and Feng rivers, the expanse of Lake Dongting, more than 4,710 other streams large and small, and a number of ponds, reservoirs, canals, and barren rivers [Yahe 0800 3109] for a total area of over 20 million mu. Of this figure, 5,358,000 mu, or 0.39 per capita, are currently suited for fish cultivation. This places Hunan in third place among the 13 southern provinces behind Jiangxi and Jiangsu. A second feature is Hunan's traditional practice and experience in the use of rice paddies for fish cultivation. There are more than 13 million mu of rice paddies which can be used both for raising mature fish and for breeding fish on a large scale. At the same time, the province has approximately 1.8 million mu of lowlands and littoral fields which can be turned back from farming to fisheries, so that the potential for expanding the area of fish cultivation is very large. A third factor is an abundance of resources of aquatic life of every class. Surveys demonstrate that the province has 163 naturally occurring species, of which over 40 are economically significant. A fourth factor is that temperature, sunlight, and water conditions are favorable to fish growth and natural and artificial hatcheries. Sources of manure and supplies of natural feed are abundant. Moreover, Hunan is a priority grain-producing region, so that feed problems are easy to resolve.

II

Since the 3d Plenum of the 11th CPC Central Committee, Hunan's fish cultivation has seen major developments. However, the pace of development has not matched increased consumption demand. Taking 1984 as an example, Hunan's gross output value for aquatic products was 534 million yuan, or 2.79 percent of the total for the province. Output per mu of water surface was only 102

jin, or about 10 jin per capita. This places Hunan seventh among the 13 southern provinces, and lower than the national average of 12.1. The labor-production rate for fisheries was 25.5 jin, which is lower than the national mark of 35.7 jin. The advantages of natural resources for fishery production have not assumed the importance they should have. There are two primary reasons for this.

First, the output-related responsibility system for fisheries has not been put into operation and perfected in a timely fashion. This has constrained the enthusiasm and creativity of the many households involved and limited the pace of developments in output. This is manifested in four areas. 1. Slow development. Incomplete statistics show that contracts are yet to be made for approximately 40 to 50 percent of hillside paddies and 70 to 80 percent of small and large reservoirs. Because questions of ownership and management rights have not been resolved on large reservoirs, no one is stocking or managing them. Some small channels and scattered bodies of water have been abandoned for long periods because of a lack of implementation of the responsibility system. 2. The brevity of contract terms. Incomplete statistics show that around 39 percent of contracts are for 2 years or less, 38.9 percent are for 3-5 years, and 22.1 percent are in excess of 5 years. With such short contract terms, motivating the households toward fish cultivation is difficult. 3. Flaws in the contracts. There are still significant numbers of water bodies for which contracts are ostensibly in place but which are actually under equalitarianism and other versions of "eating from the big bowl." Quite a few are joint household contracts for stocking fish. The ponds are split up like fields on a year-to-year basis. Some have even been placed in the care of disadvantaged households with no technical knowledge. Provisions of the contracts are in large part hampered by requirements for turning over profits and quotas of fresh fish, while replenishing feed, repairs, and cleaning of fish ponds have been overlooked. Significantly, base figures for contracts on state-run and collective fish farms for intensive fish have been too slow, with little attention paid to collections from the public or reinvestment in production. 4. The arbitrary reindexing of contract quotas and excessive turnover of profits which has hindered the enthusiasm of contract households and collectives for developing production.

A second reason is a serious lack of S&T personnel and the difficulty of propagating and spreading S&T knowledge. This has primarily two aspects: 1. Statistics show that there are currently only 571 specialized S&T cadres in fishery work in Hunan for an average of one cadre for every 35,000 mu. There are still 11 counties without a single such cadre. Even counties with rather high levels of fishery production are sorely lacking in such cadres, so that any breakthrough in fishery output or economic returns is difficult. 2. Service systems for popularizing S&T, processing systems for feed, and supply systems for improved strains are either unestablished or else incomplete. Spread of S&T services to the many households is difficult. Supplies of improved breeds do not meet demands. There have been no long-term improvements in the makeup of species; and in most places techniques for fish cultivation are still based on old-fashioned experience.

### III

Looking at the picture for Hunan as a whole, increasing the pace of fishery production from the standpoint of fish breeding should focus on tasks in the following areas.

A. Policies should be further liberalized to meet local conditions; and various forms of the responsibility system should be established and improved on a wide basis. 1. A responsibility system which meets local conditions should be set up and perfected. Hillside and lowland ponds and channels and collective fish farms of small scale should be turned over entirely to households and workers. The mode of contract can be to have a specialized contract signed for a specific number of years without revision. Alternatively, there should be a reduction or elimination of farm contracts for those taking on fishery contracts. The experience in the city of Xiangtan was as follows. Based on the fertility of the pond and the historical annual yield, outputs were set for each pond with fish replacing grain and pond area replacing field area. This was the basis for assessing the contracting household for state procurement and tax purposes. With per-mu areas of water surface contracted out to individual households, the farmers come to cherish the ponds just as they cherish their fields and come to take the initiative in working and fertilizing them and improving conditions on them. This leads to improvements in fish breeding as a whole. On hillside and flatland ponds and reservoirs, irrigation and breeding contracts can be implemented. This was done on a trial basis over the last 2 years in Zhuzhou County pairing up fish-breeding contracts with irrigation duties for the same amount of area to the same individual, who would receive a certain amount of expenses. This solved problems in coordinating fish raising and irrigation, promoting fish output and economical use of water. For larger bodies of water, there should first be accurate delineation of management rights and then implementation of specialized contracts. On the largest bodies of water, monopolistic management should be broken. The enthusiasm of the state, the collective, and the individual should equally be brought into play based upon the principle of sharing profits with the farmer. Starting from the idea of unified organization of management, planning, and coordination, all sorts of joint management should be implemented toward common exploitation of large bodies of water, so that whoever raises the fish should glean the profits. For those large bodies of water where there has been unitary management for a long period, economic return is off, and problems exist, policies should be relaxed and allowance made for interregional associations of collectives and individuals to carry out fish cultivation in enclosures and nets. On those larger bodies of water where rights and limitations on use have not yet been fully delineated, there should first be full consultation and establishment of a substantial joint economic entity comprised of the counties (cities) concerned to promote the setting up of equity operations involving the state, the collective, and individuals bordering the particular waterway. Water policies may also be relaxed to attract man and material power, capital, and technology to develop together.

2. Contract terms should be extended to provide incentives to the contractors. Further study will be required to determine how long contracts for waterways should be. Based on present conditions, the term for intensive

fish-breeding areas such as hillside and flatland ponds and commodity fish bases should be upwards of 10 to 15 years, while those for abandoned waters, large bodies, and those under development should be 20 years or longer. With these extended terms as a foundation, water-management certificates should be issued to act as a "tranquillizer" to contractors. Hanshou County adopted the method of extending contracts to at least 5 years on 11,000 mu of commodity fishery bases and issuing certificates in 1983. This provided a great incentive to households raising fish, and the per-mu output jumped from 291 jin in 1983 to 417 in 1984, with projections that it will surpass 500 jin this year.

3. Within state-run fish farms, the output-related responsibility system should be implemented as well, handing over to households entirely whatever can be contracted out and moving from stocking and raising by collectives to stocking and raising by workers and other individuals. Incentives should be put into place to promote the concentration of waters in the hands of those with ability and the creation of a contingent of small, household-run fish farms. Structural economic reforms in the five state-run fish farms in Xiangyin County led in 1984 to the establishment of a management system centered on household contracts with intensive waters completely contracted out to households and larger and more nonintensive ones going entirely to a system of hired help contracts of an individual household or joint nature. This transformed the chronic passive situation in state-run fish farms. Compared to 1983, gross fresh-fish output increased 29 percent, output value increased 19 percent, and income distribution per worker increased 419 yuan, and there was a big drop in outlays and expenditures.

4. Reasonable quotas for contracts and deductions should be set. This will ensure that as production develops on contractor and collective fish farms, there will be extensive increases and improvements in individual income, withholdings, and production conditions. This will also assure relative stability in contract quotas and paid in percentages, or, alternatively, reasonable increases therein. The "blazing eye" disease should steadfastly be overcome, to prevent unnecessary defaults and innovations in contracts. The assignment contract should be afforded the guarantees of legal effect.

B. There should be a shift in work priorities to set up and promote major developments in household fish production. Statistics show that in 1984 there were over 52,000 specialized fishery households throughout the province, managing a water area of 535,000 mu; 820,000 priority households managing 228,000 mu; and 8,580 joint entities managing 110,000 mu. The amount of water surface for stocking and breeding under household management was 20 percent throughout the province, while the total output for the same group was 37 percent. As the joint-related responsibility system becomes comprehensively adopted, Hunan's fish farming will be entering a period marked by specialized contracts, stocking and breeding by families, and primarily household management. Affirmative establishment and guidance of major development of household fish farming shall become an important part of the work of aquatic production from now on. Therefore, all levels of fishery- and aquatic-product management departments and S&T promotion organizations should set out to provide socialized services to preserve and promote the vigorous development of household fisheries. This should include effective restocking services.

The current state and collectively run services should undertake the responsibility of providing high-quality fry, and a new contingent of fish-hatching farms should be set up in a planned fashion to expand the reproductive capacity of improved breeds. Counties with no such facilities as of yet should establish them to ensure supplies of smolts; and a contingent of specialized hatchery households should be set up and developed to expand production of different breeds. A second area is that of disease-prevention services which bring together and spread expertise in prevention of fish diseases, immunization of grass carp, and new techniques for oxygenization of fishponds. Third is the establishment of a fish-feed industry system which will gradually spread and expand fish-feed supplies. Fourth is administration of fisheries and the establishment of administrative procedures for fish breeding to protect the legitimate rights and interests of fishery households.

C. We should travel the road of "targeting, exploitation, utilization, and development" to fully delve into the inner potential of surface waters. The technical strategy for fish breeding on Hunan's waters should be: To continue to target small bodies of water; aggressively develop large bodies, fully utilize incidental ones; vigorously develop fish cultivation in rice paddies; and focus on the potential of currently available surface waters. According to surveys, fish-raising capabilities on Hunan's waters are great, as the following indicates: (1) The province still has 30 percent of surface waters unutilized with the amount of rice paddies used for this purpose being only 19 percent. (2) 74 percent of surface waters in the province are still used for nonintensive fish cultivation. (3) Output is low and fluctuations great. Taking 1984 as an example, the average yield for ponds throughout the province was 168.3 jin per mu, while that for intensive fish cultivation was 330.9 jin. This fully demonstrates that there is still a great deal of potential for the province, which should be taken advantage of in various respects in the years to come. Based on individual features of surface waters, appropriate measures should be taken with the focus on unit production and raising standards for the industry.

On small bodies of water, the emphasis should be on intensive cultivation, high quality, and high yield. Conditions for fish cultivation should be improved, income should increase, the composition of varieties should be improved and levels of intensive cultivation should go up. This should bring up the quality of the 40.8 percent of secondary and 27.7 percent tertiary ponds and expand the area under intensive cultivation. Intensive and semi-intensive cultivation in barren rivers and backwaters should be done. On lakes and reservoirs the emphasis should gradually move toward combining protection of reproductive resources with artificial stocking and cultivation, affirmative adoption of new techniques and experiences with net and trap fishing. Larger bodies of water should be divided into smaller ones, with artificial feeding and intensive cultivation. Further experimentation and spread of dual rice-fish cultivation should be promoted, with emphasis on exploitation of new techniques and opening up new areas to bring about breakthrough developments in the yield and area devoted to dual cultivation. Hanshou County has already completed a successful trial in this area, with an area of 3-dimensional cultivation exceeding 600 mu. The yield of early rice was equal to that in paddies devoted solely to rice, and projections are for a fresh-fish harvest of over 200 jin per mu. Last year Zhouwen Village in

Zhouwen Township attempted a 3-dimensional plot of 5.87 mu and achieved a rice yield of 1,627.8 jin--295.8 jin more than the two-season total with only rice cultivation. The per-mu fresh-fish yield was 186 jin, and net profit amounted to 103 percent more than on a control plot. In areas with more surface water for fish cultivation, rice paddies can be used both for large-scale cultivation of fish stocks and for raising mature fish. This solves the problem of inadequate fish stocks.

D. Speed up the nurture of human talent and exploitation of knowledge to upgrade the productivity of fish cultivation. We suggest the adoption of the following measures. First, multilevel, multichannel, diversified nurture of talented individuals in specialized aquatic technology. In addition to augmenting in a planned fashion aquatic specialties in the province's institutes of agronomy, expanding admissions capabilities of the province's agricultural middle schools, and creating a special school for aquatic production, prefectural (municipal) and county agricultural schools should create conditions for the inauguration of a major in aquatic production. In the Dongting Hu region and in those counties with yearly production of more than 100,000 dan of fresh fish, specialized aquatic production middle schools can be created or else opened as part of existing agricultural middle schools. These can carry out such diversified activities as professional training and short-term correspondence courses to train aquatic-production specialists. A second avenue is to maximize the special features of existing technical cadres and thoroughly solve the difficulties they encounter in work, so as to give adequate scope to their abilities. "Local experts" from among the farm population can be ferreted out through the organization of fish-cultivation-technology associations among the people, bringing their unique talents fully into play to become technological "think tanks" for rural fishery production. A third is to encourage technical contracts which are compensated and compensated transfer of technical results, and to permit equitable shares in technology, along with jointly run production-technical entities which are composed of production units and individuals. There should be affirmative exploitation of the new media to popularize technology. The fourth area is to bring forward high-yield, high-quality models of fish-cultivation households who can serve to motivate a string of others and gradually become more generally known.

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CSO: 4007/161

HUNAN

USING FARMLAND IN CONSTRUCTION CIRCULAR ISSUED

HK270655 Changsha Hunan Provincial Service in Mandarin 1100 GMT 25 Feb 86

[Excerpts] The provincial people's government recently issued a circular calling for checking the trend of unscrupulously seizing and using farmland in rural and urban construction.

The circular pointed out: Land in the cities is owned by the state and land in the countryside and on the outskirts of the cities is owned by the collective, with the exception of some plots of land which are owned by the state according to law. Meanwhile, land used for commodity production bases, family plots, and private plots in mountain areas are also owned by the collective. No units or individuals are allowed to seize, sell or buy, rent, or transfer possession of public land, except that the state may take over urban and rural land for use in capital construction according to law.

The circular stressed: Urban and rural construction should be strictly carried out according to plans and in line with the principle of making proper use of land and permitting no waste of land. The state, the collective, and the individual should all apply for use of land through necessary examination and approval procedures according to regulations specified by the state and the province. They are not allowed to seize land without authorization and no one is allowed to overstep his power to approve the use of land by others. Due punishment should be meted out to those who violate state regulations governing land management and those who break laws to seize or use land should be dealt with according to law by judicial bodies. Violations by government functionaries and grassroots cadres in this field should be handled strictly.

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CSO: 4007/298

JIANGSU

RADIO COMMENTARY ON GRAIN PROCUREMENT

OW210928 Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 20 Feb 86

[Unattributed station commentary: "Seriously Fulfill This Year's Task of Grain Purchase by Contract"]

[Text] This year is the second year since the state put into effect the system of grain purchase by contract. All localities in our province have gained some experience in successfully implementing this system from the practical work they did last year. However, what they did was merely an initial step on the right track, and a period of gradual transition is required to perfect the contract system.

Our province's grain purchase task has changed somewhat this year in comparison with last year. Contract purchases have been reduced, while the task of negotiated purchase has been increased. In previous years, negotiated purchase was not an imperative task assigned to the grassroots level. This year it will be taken as an imperative task that must be fulfilled in order to meet the state requirements. The primary advantage of this change is the increase in the peasants' income.

All localities should conduct a serious ideological education among their peasants and cadres to let them know that agriculture is the fundamental task and to enable them to cherish the idea of state interests. Through this education, the cadres and peasants should uphold the idea that agriculture is the foundation of the national economy and grain is the root of this foundation. They should make a serious effort to grasp grain production and overcome the misunderstanding that no profit can be accrued from growing grain crops and that it doesn't matter whether grain purchase contracts are signed or not. They should do their best to grow grain crops and sell their harvest to the state in accordance with the contracts so as to support the program of the four modernizations.

At present Rain Water [hu shui, one of the solar terms in the lunar calendar] has passed, and the busy spring farming season is imminent. All localities should seize the current opportune time to do concrete and meticulous work to make good arrangements for fulfilling this year's grain procurement tasks, both the contract purchase and negotiated purchase.

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CSO: 4007/298

JIANGSU

SALES DROP NOTED FOR FARM MACHINERY

Beijing ZHONGGUO NONGJIHUA BAO in Chinese 2 Jan 86 p 3

[Market forecast by Shao Kuanyi [6730 0385 1355], manager of the Jiangsu Provincial Farm Machinery Co.: "Sales of Farm Machinery in Jiangsu Down 10 to 20 Percent This Year"]

[Text] Between January and November of 1985, sales of farm machinery by Jiangsu's farm machinery system outside the system reached 590 million yuan, which was 23 percent in excess of its annual quota and up 28 percent over the same period the previous year. Looking at fluctuations in the sales picture for the year as a whole, supplies of primary machinery and spare parts were outstripped by demand in the first half, with some letup in the second half. Sales of non-name brands were slow. In view of the fact that the state's construction policies this year continued to be toward controls at the macroeconomic level, revitalization at the microeconomic level, tightening of money and control of credit, and that Jiangsu's grain production was reduced last year, projections for 1986 are for sales outside of the system to be down 10 to 20 percent.

1. Sales of Large and Mid-Sized Tractors Should Remain Fundamentally Stable, with Slight Increases

Because Jiangsu's township and town industry is rather well-developed, the rural economy is developing rapidly with industry shoring up agriculture, promoting a major shift in farm labor force. Now that field work is mechanized or partially mechanized, small tractors have become ill-suited for the new requirements. Model 50's are gradually coming to replace small tractors in the southern region of the province, with some parts of the region showing increases for this model of somewhere between 10 and 15 percent. It is projected that this trend will continue.

2. Sales of Hand Tractors Should Continue to Fall

Between January and November 1985, the system sold 41,000 hand-held tractors externally, down about 10 percent from the previous year. Since the total number of such tractors in the province is already at 500,000, which is first nationwide, the market is saturated in many counties and cities. In some counties and cities where township and town industry is well-developed, large and mid-sized tractors are gradually replacing them. In those regions where "local

policies" prevail, burdens on tractor-holders are rather heavy. Moreover, the impact of such factors as the shortage of diesel fuel and reductions in transportation services has had some effect on sales appeal to users. Therefore, sales of hand-held tractors should still decline about 10 percent, resulting in lively competition between manufacturers and an even more conspicuous shift in purchaser selection toward name brands.

### 3. A Steadying Trend in Small Diesel Sales with Some Slippage, While Name Brands Should Continue To Sell Well

Jiangsu is situated in the lower reaches of the Chang Jiang and the Huai He, where water transportation is developed, thus sales of small diesel outboard motors should remain brisk; however, due to increasing movement of name brands, sales of such name brands will continue to be good but non-name brand sales will suffer. If this year brings no major droughts or floods, small diesel sales should be off from average years.

### 4. For Diesel Generator Sets, Sales Should Be Stable with a Tendency Toward Higher Quality with a Further Tendency Toward Bargains

Shrinkage in basic construction and shortages of diesel fuel should impact somewhat on sales of diesel generator sets. Beginning in the last half of last year, sales started falling for diesel generator sets less than 75 kW. Electric power is still in short supply this year with the continued development of township and town industry, leading to some demand for generator sets. This should lead to sales for equipment larger than 75 kW. But the flood of generator sets now installed should lead to an even more conspicuous movement by users toward quality and economy together.

### 5. Stable Growth in Sales of Semiautomatic Farm Tools and Parts

Jiangsu has demand for repair and rebuilding of 4.6 million power vehicles; but because of the impact of such factors as raw materials, this year supply will be unable to meet demand. As sales stabilize for small diesel tractors, the shortage of spare parts should undergo a marked improvement, until demand is basically met for all but a few key parts. It is projected that sales of power vehicles and spare parts will continue to rise steadily.

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CSO: 4007/249

LIAONING

BRIEFS

DEMAND FOR FARM MACHINES--To solve the problem of greatly needed rice transplanters in 1986, the Liaoning provincial agriculture and animal husbandry department has allocated 1.3 million yuan to the provincial Farm Machine Supply Company as a circulating fund to import Japanese rice transplanters. The provincial company has ordered more than 100 rice transplanters from Jilin province. In addition, with the approval of the Ministry of Agriculture, Animal Husbandry, and Fisheries 100 rice transplanters will be imported from Japan to meet demand. [Text]  
[Beijing NONGJIHUA BAO in Chinese 9 Feb 86 p 3]

CSO: 4007/312

NEI MONGGOL

INDIVIDUALS GIVEN LARGER ROLE IN AFFORESTATION

Hohhot NEIMENGGU RIBAO in Chinese 6 Nov 85 p 1

[Article by Fan Linxin [4636 2651 2450]: "Nei Monggol Has Made Remarkable Gains in Afforestation During the Sixth 5-Year Plan"]

[Text] During the period of the Sixth 5-Year Plan, every level of party and government leadership as conscientiously implemented the economic development strategy of "emphasizing forests and livestock, expanding the variety of operations." Forests and pasture land have been well developed, facilitating the development of agriculture and animal husbandry. Tremendous achievements in afforestation have been made in Nei Monggol. The area that has been afforested and protected since the 3d Plenum of the 11th CPC Central Committee exceeds the total for the preceding 28 years.

Relax Policies; Motivating the Good Masses Is the Key to Rapid Afforestation: In 1982, in accordance with the spirit of the Central Committee, Nei Monggol changed its previous approach to afforestation, which had been to "regard the collective as primary, and have the state, the collective, and the individual proceed together." It was changed to "the individual, the collective, and the state proceed together." After more than a year of experience, it now has been further revised: "The individual, the collective, and the state proceed together, and family operations are primary." At the same time, the autonomous region's government has promulgated 10 regulations regarding a more relaxed afforestation policy. This policy and these regulations greatly spurred interest in afforestation. Altogether, 36.41 million mu of "three barren" [san huang 0005 5435] land suitable for afforestation has been transferred to some 2,214,000 agricultural and herding households. Another 28 million mu of forest land belonging to collectives will be transferred to individual households for a fair price or contracted out for individual households to manage. Some state-owned secondary forest land that is difficult to manage well will be entrusted to the management of the collective or of individuals. This year, the masses have followed the spirit of the Central Committee's 1985 Document No 1 and have gradually and methodically changed low-yielding hilly or sandy fields from use in agriculture to use in forestry.

Combined Forest-Specialized Households and Key Households Have Become the Main Force Leading the Broad Masses in Afforestation: At present, there already are 84,000 households engaged in both agriculture and forestry, which represents 3 percent of all rural households. These combined households manage 14.5

million mu of "three baren" land suitable for afforestation, which is 40 percent of all such land in Nei Monggol. One-third of the barren land has been covered with saplings. The proportion of forests planted by individuals has been increasing steadily. Before 1981, only 3 percent of Nei Monggol's total forest land was planted by individuals. By 1984, the portion had increased to 67 percent. This year it may approach 70 percent.

Forest Preservation Is the Main Direction of Attack in Afforestation Work; the Proportion of Superior Tree Varieties Should Steadily Increase: Beginning in 1978, Nei Monggol decided that forest preservation work was the main direction of attack on afforestation work, in accord with the project tasks and responsibilities approved by the State Council for the forest systems in the "three norths." This was to change the practice in the past of emphasizing only timber production and ignoring forest preservation. In 1981, a new policy was begun of "emphasizing shrubs and linking uniform shrubs and grasses," and continuously adjusting the varieties of forests and trees. Before the 3d Plenum of the 11th CPC Central Committee, afforestation for timber production was double that of afforestation for forest conservation. Now the ratio has been reversed. Seven years ago, only 14.4 percent of afforestation work used shrubs, 13.3 percent used coniferous tree varieties well suited for timber, and 72.3 percent used broadleaf trees, primarily poplars. During the past 7 years, the proportion of shrubs and of conifers has increased to 34 percent and more than 20 percent, respectively. The percentage of broadleaf trees has dropped to 45 percent. The old practice in which branches of old poplars were used in afforestation on dry hill land to create "little old trees" has basically been eliminated.

The Rates for Survival and Preservation Continue To Improve: During the 28 years before the 3d Plenum of the 11th CPC Central Committee, the total area of forest preserves in Nei Monggol was 17.44 million mu. The preservation rate was 27.6 percent. The amount of land afforested each year, on average, was 690,000 mu. During the 7 years since the 3d Plenum, the preserved afforested area that has survived has been 21.75 million mu, exceeding the total for the preceding 28 years. In recent years, the preservation rate has reached 45.5 percent, and the annual rate of advance is 3.1 million mu, which is a rate 3.5-fold as fast as in the past. Especially since 1982, there has been a succession of new records in afforestation and Nei Monggol has occupied first place in China. The year 1985 has been one of continued advances in afforestation.

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NEI MONGGOL

FEED-PROCESSING INDUSTRY MECHANIZED, EXPANDED

Hohhot NEIMENGGU RIBAO in Chinese 12 Nov 85 p 1

[Article by He Shumei [0149 3219 2734] and Yi Min [4135 3046]: "Nei Monggol Feed-Processing Industry Develops Rapidly During the Sixth 5-Year Plan"]

[Text] The period of the Sixth 5-Year Plan has been an important period for Nei Monggol's feed-processing industry, which has gone from being small and virtually nonexistent to now being large and flourishing.

In 1980, the last year of the Fifth 5-Year Plan, Nei Monggol only had a few feed-processing mills that relied upon manual mixing and had outdated equipment and technology. Annual production capacity was only 20 million jin. For all practical purposes, the feed industry remained nonexistent. During the last 5 years, after entering the period of the Sixth 5-Year Plan, Nei Monggol's feed industry has developed rapidly and now has achieved the first steps in becoming a fairly complete system. At present, in Nei Monggol there are 170 automated or semiautomated feed processing mills. In addition, there are 6,979 processing installations. Annual production capacity has increased to 1.73 billion jin, which is 85-fold the annual capacity of 1980. At present, Nei Monggol not only has giant 10,000-ton-per-annum feed-processing mills, it also has plants that can produce bone and blood products, minerals and trace elements, growth elements, and other feed material additives. Not only are the plants able to produce ordinary feeds, they are also able to tailor feeds according to the various breeds of animals and varying nutritional needs at different stages of growth. Happily, during the past 2 years the uses of processed feed materials (which include pasture grass, grain stalks, etc) have received widespread attention. Last year, a total of 910 million jin of feed material was processed in the region, which was 52 percent of all feed materials. Zhemenghe, which is in an agricultural area where animal husbandry is relatively developed, and Humeng, which relies primarily upon grassland grazing, processed 320 million and 8.36 million jin of feed material, respectively, which was 70 and 31 percent of their respective feed materials. Yi League's Ejin Horo Banner's Narenxilisu has begun to process twigs from ning trees. It also has begun to use shrubs as a feed material. Another special aspect of the development of Nei Monggol's feed industry is the union of large-, medium-, and small-scale operations, with small-scale predominating. Feed-processing installations operated by individuals, groups of households, or collectives account for 98.5 percent of the total number. This means that capital investment in the industry primarily has been

internally generated. Hinggan League has invested a total of 1.1 million yuan in the feed-processing industry. Localities and individuals have contributed 820,000 yuan of this total, which is more than 74 percent.

During the period of the Seventh 5-Year Plan, Nei Monggol's feed-processing industry will enter a golden age of development. Informed government sources have told reporters that they are preparing to import advanced equipment from abroad and build or expand giant feed-processing plants in Hohhot, Baotou, and other places that will have annual capacities of 50,000 tons. Some of the processing machinery has already arrived. Since the feed-processing industry is only just now developing, Nei Monggol is at present preparing to establish a feed-inspection agency in order to insure maintenance of quality in feed processing.

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NEI MONGGOL

RURAL ENTERPRISES EXPAND DURING REFORM

Hohhot NEIMENGGU RIBAO in Chinese 9 Nov 85 p 1

[Article by Liu Hongxing [0491 4767 2502] and Wang Xiuzhen [3769 0208 3791]:  
"Nei Monggol Rural Enterprises Advance Steadily During Reform"]

[Text] In order to improve the economy in farming and herding districts and promote stable development of agricultural and animal husbandry industries, Nei Monggol rural enterprises are advancing steadily during reform, starting with realistic expectations and a commitment to serve the agricultural and animal husbandry industries. Between January and September of this year, the total value of production in Nei Monggol rural enterprises reached more than 1.14 billion yuan, exceeding by 13.8 percent the total for all of last year. More than 38 million yuan in taxes have been paid, which is more than threefold the amount of funds that financial administrators have given to promote rural enterprises.

The expansion of Nei Monggol rural enterprises began late and on a weak base. Last year, after the promulgation of the Central Committee's Document No 1, and particularly after the Nei Monggol Rural Enterprises Work Conference was held this year, the expansion of rural enterprises has been tremendous. In the new situation, localities have followed the instructions and spirit of the Nei Monggol Autonomous Region's party committee and have studied and summed up the reform and construction experiences of small towns. This has helped guide rural enterprises in keeping a steady step on the road to development.

The development of rural enterprises and of agricultural and animal husbandry industries proceeds together with each helping the other. This is a special characteristic of the steady advance of rural enterprises in Nei Monggol. Since this year the development of rural enterprises in Nei Monggol has continued to be based on the agricultural and animal husbandry industries, and on serving those industries. There are now said to be more than 10,000 enterprises that in the first 9 months of this year have served agriculture and animal husbandry in pre- and post-production roles, processing edible oils, food products, feedstocks, milk products, leather products, and other items. This is an increase of 30 percent over the number of similar enterprises this year. More than 10 million medium-sized and small agricultural and animal husbandry tools have been manufactured at a cost of more than 10 million yuan and put to the service of increasing agricultural and animal husbandry

production. IN Tongliao County's Mulitu Town, attention has been paid to promoting processing industries for agriculture and livestock. At present, it has some 29 such enterprises. At the same time, a fund of 500,000 yuan accumulated by the rural enterprises has been used to improve agricultural production conditions. Last year, 800 jin of grain were produced per mu; this year there will be a further increase.

The second special characteristic has been that in starting enterprises, emphasis has been placed on proceeding according to local conditions and resources. Small-scale, high-efficiency projects are preferred. Everything should be done to avoid blind errors. At present, more than 90 percent of rural enterprises in Nei Monggol are small- or medium-scale enterprises started by individuals or groups of households. Not only do these enterprises depend on the support of the state, they also are founded on the principle of self-reliance. They substitute labor for capital, distribute shares and divide profits, pool together local people's savings, and use other measures and sources to raise capital. Between January and September of this year, more than 100 million yuan of investment capital was raised with these methods. This represents 40 percent of the total investment this year in rural enterprises. Many small and medium-sized enterprises have been started successfully without spending 1 cent of the state's money. In Wuyuan County's Bayantaohai, the peasants this year raised 30,000 yuan and joined together to open a plant for processing spice and sunflower seed. It took only 1 month to begin production. In the first month of operations, the plant's production was worth 210,000 yuan and earned a net profit of 30,000 yuan. The plant not only has increased incomes, it also has solved the problem of finding a market for locally produced sunflower seed.

The third special characteristic has been that eyes have been turned inward and emphasis has been placed on expanding many different kinds of economic ties and accelerating the pace of internal reform within enterprises. Since this year, there has been fresh recognition by rural enterprises in Nei Monggol that they must depend upon improving internal conditions in the enterprises in order to meet changing external conditions. The previous emphasis on starting new enterprises has given way to emphasis now being placed on realizing the potential to change existing enterprises, improving enterprise management and product quality, and trying hard to bring forth new products. At the same time, many forms of union have appeared both in and out of Nei Monggol, joining together the individual, collective, and state, and joining together enterprises and technical personnel at a number of levels, in a variety of proportions, and through a variety of channels. In the suburbs of Hohhot, the Ma Steel Shop used funds accumulated by the enterprise to replace 60 percent of its equipment and to remodel more than 90 percent of the shop's space. This year, it arranged with Hohhot's No 28 Middle School to sponsor jointly a technical high school to train personnel. Moreover, it improved enterprise management and concentrated on product quality. Now every model of its steel bands is in such demand that production cannot keep up. Its products are sold in 13 provinces and regions. In only the first half of the year, the value of production reached 2 million yuan, which corresponds to the value produced during all of last year.

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NEI MONGGOL

# USE OF CONTRACTS IN HUANG HE CONSERVANCY INCREASED

Hohhot NEIMENGGU RIBAO in Chinese 9 Nov 85 p 1

[Article by He Dongjun [0149 2639 0689] and Lin Wentang [2651 2429 1016]:  
"Control of Huang He in Nei Monggol Reaches New Stage"]

[Text] Control of the Huang He in Nei Monggol, involving contracts with almost 50,000 farming and herding households, has now reached a new stage. Family-operated farms, pastures, forests, orchards, and lumber- and fruit-processing bases have appeared on the loess plateau that 's subject to severe erosion. Through the use of contracts for conservancy work in the tributary basins, more than 40,000 farming and herding households have left poverty behind and solved the historically unsolved problems of securing sufficient food and shelter. Among these families are some that have begun to become rich.

Since the 3d Plenum of the 11th CPC Central Committee, the party and the government in the Nei Monggol Autonomous Region have relaxed policies and have contracted with farming and herding people to take care of untended ditches and embankments. Whoever does conservancy work is rewarded. This has motivated farming and herding people to control the soil and water. At the same time, technical personnel and farming and herding people have worked together to derive lessons from past experiences and determine an overall conservancy plan. The plan combines biological and engineering considerations, long-term and short-term interests, programs to eradicate poverty, and the prospects of having the control of Huang He tributaries proceeding rapidly, on a large scale, and with large benefits. In these 24 banners (counties), from 1980 to 1984, the erosion control area reached 6,277 square km, which is some 1,000 square km more than the total covered in the 20-plus years preceding the 3d Plenum of the 11th CPC Central Committee. In 1984, the Huang He conservancy area reached 1,876 square km, which is 8.4-fold the annual average of area before the 3d Plenum of the 11th CPC Central Committee. At present, the area of erosion control in the Huang He basin in Nei Monggol has reached 11,380 square km, which is 14.5 percent of the total area of erosion.

Conservancy in the tributary basins has led to the appearance of new commercial and production bases along both banks of the Huang He. Since the Liangcheng County government contracted with farming and herding people to take care of 24 segments of tributaries, 1.06 million mu of artificial forests and 260,000 mu of artificial pastures have been planted. This year the artificial grasslands will produce 200 million jin of dry grass. The abundance of trees, grass, and fruit contributes to the development of processing industries.

NEI MONGGOL

BRIEFS

COARSE FODDER PROCESSING TECHNIQUE--Hohhot, 20 Feb (XINHUA)--A new technique for refining coarse animal fodder with sprayed steam has been developed by the Inner Mongolia Academy of Animal Husbandry Science, an official said here today. The technique works on tree branches, chaff, and maize and wheat stalks and removes poison from rapeseed and cottonseed cakes, making them suitable for feeding animals, the official said. For example, 1 kilogram of steam sprayed branches of the Chinese pea tree, a widely available desert bush, could substitute for up to 1.7 kilograms of dried grass to feed dairy cattle. "This would cut costs by at least 70 fen (about 24 U.S. cents) per cow a day," the official said. The Inner Mongolia Autonomous Region, one of China's 5 major pastoral areas, gathers 12 million tons of crop stalks and forestry by-products a year. [Text] [Beijing XINHUA in English 0845 GMT 20 Feb 86 OW] /8309

FOOD INDUSTRY--The town and township food industry is flourishing in the rural and pastoral areas of Nei Monggol. At present, there are 1,000 such enterprises, in 1985 the gross output value was 100 million yuan. Nei Monggol has abundant agricultural, pastoral, sideline and wild plant resources, prospects for developing the food industry are good. There are more than 30 million head (#) of livestock in the region. There are a variety of oil crops, sunflower seed output alone is around one billion jin, in addition, there is a huge amount of wild plants such as mushrooms, wild red beans, mu'er, etc. These provide a solid foundation for developing the food industry. [Excerpts] [Beijing ZHONGGUO XIANGZHENQIYE BAO in Chinese 8 Feb 86 p 1]

CSO: 4007/309

19 March 1986

## NINGXIA

## LI XUEZHI ADDRESSES RURAL WORK CONFERENCE

HK210425 Yinchuan NINGXIA RIBAO in Chinese 1 Feb 86 p 1

[Report: "Regional CPC Committee and Government Convene Rural Work Conference"]

[Text] A regional rural work conference was held by the CPC and people's government of the autonomous region from 25 to 31 January in Yinchuan. The conference conscientiously relayed and studied the No 1 document of the Central authorities; fully affirmed the marked achievements made in the second stage of reform in the rural areas of our region, and defined the focal points of the rural work of the whole region. These focal points are: profoundly implementing the spirit of the national rural work conference, and of the No 1 document issued by the central authorities this year; conscientiously implementing the strategic guiding principle that agriculture is the foundation of the economy; further implementing various policies for the rural areas in order to consolidate, digest, and replenish the results which have been achieved in the second stage of the rural reform; and relying on the policy and science in working hard to improve production conditions and promote the all-round development of the rural economy.

During the conference, autonomous regional CPC secretary Comrade Li Xuezhong made an important speech entitled: "Carry Forward the Spirit of the Foolish Old Man, Deepen the Reform, and Promote a Sustained, Stable, and Coordinated Economic Development in Our Region" (text of speech is published separately). Comrade Cai Zhulin, member of the autonomous regional CPC committee standing committee, relayed the spirit of the national rural work conference, and delivered a speech in accordance with the practical conditions in our region and the principles of the regional CPC committee.

The conference maintained: In 1985 the rural areas in our region made a great stride and achieved marked results in reforming the system of state monopoly in purchasing agricultural products and the system of assigned procurement, and in readjusting production set-ups. Rural economy has been further enlivened, the enthusiasm of the broad masses of peasants in developing commodity production has been increasingly enhanced, and rural economy has developed in a sustained way. Due to some factors such as comparatively severe natural calamities and so on, our grain output last year dropped by 200 million jin. However, thanks to our efforts to readjust production

set-ups and free the prices of some products, the total output value of society in the rural areas of the whole region increased by 12.8 percent during 1985, and the per capita income of peasants increased by 31 yuan. Practice has proved that the guiding principles and policy for rural reform are correct. The achievements we have made today come from reform, and our progress tomorrow will also rely on reform.

The conference pointed out: Due to the fact that rural reform is progressing in depth, a number of uncoordinated things have happened in the course of replacing the old economic system with the new one, and the readjustment of the interests of various quarters has become more complicated since the convergence of urban and rural reforms. Therefore, in the process of carrying out rural reform and developing commodity economy, we have encountered a number of difficult problems, and some acute contradictions. For example, there are indications that peasants in the irrigated areas are not so interested in planting grain. In some areas, the burden imposed on peasants is comparatively heavy. Services before and after production have fallen short of demand. We should rely on deepening the reform to solve these problems.

The conference stressed: "We should on no account relax our efforts to carry out grain production. We should actively develop diversified economy." This is a fundamental guiding principle for agricultural development. "Without agriculture, it is impossible to ensure a stable economy," and "without grain, things will be thrown into confusion." We should on no account treat grain production lightly. Instead, we should grasp it firmly and effectively. We should exert our efforts to breed fine varieties of seeds, popularize advanced cultivation techniques aimed at high production, strengthen capital construction in irrigation and water conservancy, exploit land resources, and promote the management of land in order to ensure the steady growth of grain output in our region. The participating comrades supported the eight policies and measures of the CPC committee and people's government of the autonomous region aimed at protecting and arousing the enthusiasm of peasants in planting and selling grain, such as improving the system of grain purchase based on contracts, linking grain output with the supply of chemical fertilizer, reducing the prices of small chemical fertilizer [xiao hua fei 1420 0553 5142], increasing investment in agriculture, subsidizing agriculture with industrial funds, and so on. They also hoped that the departments concerned would firmly grasp the implementation of these policies and measures. The participating comrades held: We should be firm in readjusting the pattern of agricultural production. We should not waver in our determination simply because of a temporary reduction of grain output. We should actively develop forestry, animal husbandry, cash crops, aquatic breeding, and so on, so that grain production and diversified economy will develop and mutually promote each other according to the principle of overall consideration.

During the conference, the participating comrades were inspired by the news that the total output value of town and township enterprises throughout the region in 1985 had reached 600 million yuan. They believed that developing town and township enterprises was truly the only way to reinvigorate the rural economy. They are also the bright hope of the rural areas. Various

localities should actively support town and township enterprises, work out rational plans, guide them correctly, and strengthen their management. In the coming 2 years, we should carry out necessary readjustment and consolidation of the town and township enterprises, straighten out their business direction, improve their management and administration, and enhance their economic results so that they can develop in a healthy way. In the process of making science and technology serve rural economy, we should attach importance to the projects concerning town and township enterprises which are covered by the "spark program" of the period of the Seventh Five-Year Plan. The program should be implemented as early as possible.

The conference maintained: Impediments to commodity circulation are an important factor blocking the activeness and development of the commodity economy. It is a focal point in this year's rural work to carry out an in-depth reform of the circulation system, and to improve the purchase system based on contracts. While improving the purchase system of grain based on contracts, we should persist in implementing the policy of freeing the prices of some agricultural and sideline products such as apples, sheep wool, and so on. We should not regress in this respect. Supply and marketing cooperations should speed up their reform with regard to the thinking guiding their business, and the scope, methods, and pattern of their business so that they will completely become cooperative business organizations of the broad masses of peasants. We should expand the contingent of purchasing agents of peasant origin, and fully arouse the enthusiasm of peasants in participating in the field of circulation. In the meantime, we should establish some wholesale markets for agricultural and sideline products, and run some new commercial enterprises on a trial basis.

The conference pointed out: Although the mountainous area in the southern part of our region has achieved some economic development in recent years, it has not yet been lifted out of poverty. Some 20 percent of the peasants have not yet solved the problem of dressing warmly and eating their fill. It is not only an economic problem, but also a political problem to help this area gradually get rid of poverty. Leaders and departments at all levels should suggest ways and means and do their best to change the backwardness of the mountainous area. They should lend more relevant support to the southern mountainous area in terms of material and financial resources, technology, talented personnel, and so forth. We should conscientiously implement the spirit of the fifth enlarged meeting of the leading group under the State Council in charge of agricultural construction in the areas of "Xihaigu in Ningxia, and Hexi and Dingxi in Gansu," and strive to attain the target of providing the people with sufficient food and clothing in 5 years. Xihaigu in Ningxia, and Hexi and Dingxi in Gansu should persist in implementing the guiding principle of planting trees and grass, grasp the work of grass processing, promote synchronous development of grass planting and animal husbandry, and increase peasants' income. We should vigorously popularize the "two methods" suitable for the planting undertaking, and do well in planting upland crops. Export of labor will enable us to increase income, and to train our talented personnel. It should be vigorously advocated and organized. We

should speed up the construction of some "key villages," vigorously develop town and township enterprises, and strengthen intellectual exploitation and the work of family planning.

The conference also discussed and made arrangements for strengthening the popularization and application of science and technology, developing socialized services, lightening the burden of peasants, carrying out more capital construction in agriculture, improving the style of leadership, and so on.

The conference stressed: It is our long-term strategic guiding principle to take agriculture as the foundation for the development of the national economy. We should on no account neglect agriculture simply because our agricultural conditions have been improved, let alone negate the vital position of agriculture because the percentage of agricultural output value in the national economy has dropped. This year is the first year of the Seventh Five-Year Plan. Stable development of the rural economy has a vital bearing on the situation of the national economy as a whole. It will also determine whether we will be able to achieve the target of attaining a comfortably well-off level by the end of this century. We should conscientiously put into effect a series of policies worked out by the party for rural development, persist in reform, make efforts to carry out our struggle, strive to win a still greater victory in the second stage of rural reform, and promote the all-round reinvigoration of the rural economy in our region!

At the end of the conference, Comrade Ma Sizhong, member of the autonomous regional CPC committee standing committee and vice chairman of the regional government, delivered a summary report. He urged various localities to organize forces to go down to the rural areas, give wide publicity to the spirit of the No 1 document of the central authorities and of this conference, solve pronounced problems, and help peasants so that they will lose no time in effectively making preparations for plowing and sowing and promoting their production.

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CSO: 4007/298

NINGXIA

NINGXIA FARMS MAJOR NONSTAPLE FOOD SUPPLIERS

OW210742 Beijing XINHUA in English 0645 GMT 21 Feb 86

[Text] Yinchuan, 21 Feb (XINHUA)--State farms in the Ningxia Hui Autonomous Region have become major non-staple food suppliers, a local official said today.

Liu Dengwang, director of the region's Land Reclamation Bureau, said that Ningxia's 13 state farms produce 3,000 tons of edible oil, 500 tons of chicken and 250 tons of fish annually.

He said these farms also produce 3.5 million liters of fresh milk a year, or 85 percent of the region's total and 10 million liters of beer, 90 percent of the regional production.

Last year, the total output value of the farms reached about 120 million yuan, double the figure for 1980, Liu said. Total output value in the past five years topped 440 million yuan.

These farms, with a total area of 33,000 hectares, have devoted one-fifth of their land to growing cash crops including fruit since 1981.

Liu said his farms, which formerly cultivated grain almost exclusively, have earmarked two million yuan and devoted 1,300 hectares of land for the development of fish ponds since 1981.

The region is also giving priority to the processing of agricultural produce. Nine feed processing plants and 20 non-staple food processing factories have been set up on the farms, Liu said.

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CSO: 4020/233

NINGXIA

NINGXIA TO END RURAL DRINKING WATER SHORTAGE

OW251206 Beijing XINHUA in English 1152 GMT 25 Feb 86

[Text] Yinchuan, 25 Feb (XINHUA)--The Ningxia Hui Autonomous Region, like other parts of China, plans to end rural drinking water shortages by 1990, a regional official said here today.

By then, the Northwest China regional government plans to spend 46 million yuan (about 15 million U.S. dollars) on 40,000 drinking water facilities including canals, wells, reservoirs and ponds, according to the regional water conservation bureau.

This means 453,000 residents and 98,000 farm animals now lacking access to drinking water will have adequate supplies.

Located in one of the most arid parts of China, Ningxia has provided drinking water to 387,000 rural residents and 95,000 farm animals since 1980.

According to regional standards, each person should have access to at least 10 liters of drinking water a day, and each farm animal should have 30 liters.

To supply a local resident with sufficient water usually requires 200 to 225 yuan in investment. Since 1980, the regional government has spent 36 million yuan completing more than 123,000 drinking water facilities, most of them ponds and wells.

One project completed in October, a pumping canal to divert water from the Yellow River, by itself has helped 100,000 peasants on the arid loess highlands of Southern Ningxia.

The 142-kilometer canal, which runs from Zhongning County to Guyuan County, will eventually irrigate 27,000 hectares of farmland in the area and supply better quality water to 290,000 sheep and cattle.

According to an earlier report, China has solved the problem of drinking water shortage for 70 million rural residents over the past 30 years, 75 percent of the total suffering the problem previously.

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CSO: 4020/233

NINGXIA

GREAT INCREASE IN FISH PRODUCTION REPORTED

Yinchuan NINGXIA RIBAO in Chinese 29 Nov 85 p 1

[Article by Yu Xiaolong [0060 1420 7893]: "Gratifying Situation Emerges in Region's Fishing Industry Output During Sixth 5-Year Plan; More Fish in the 'Land of Fish and Rice'"]

[Text] During the Sixth 5-Year Plan, all jurisdictions in the Ningxia Hui Autonomous Region carried out diligently a series of programs and policies of the Central Committee and the autonomous region for hastening development of the aquatic products industry. As a result, fish became more plentiful year by year in the "land of fish and rice." Statistics from departments concerned show 120,000 mu of water surfaces throughout the region devoted to the rearing of fish in 1984, a more than threefold increase over the 1978 figure. Forecasts call for an output of 2,100 tons in 1985 in a further 30 percent increase over 1984.

In recent years, the region has built a series of commodity fish production bases. In 1984, Yinchuan City raised nearly 4 million yuan through various channels including money put up by the city, sale of labor, loans, and state support that it used to build 4,760 mu of first-rate fish rearing ponds. During the same year, more than 2,300 mu were put into production and produced more than 13 million fish for autumn stocking, which yielded 75 tons of mature fish with a gross output value of 650,000 yuan. Plans this year for the region originally called for the new construction of 10,800 mu of commodity fish bases, but more than 11,100 mu were actually built and turned over for acceptance. During the same year more than 7,900 mu went into production. Output value is forecast at more than 2 million yuan.

With the spread of restructuring of the rural economic system and household partnership responsibility systems, the region's rural fish rearing industry has also flourished. Statistics show the number of households in rural areas throughout the region that are rearing a fairly large number of fish to have grown to more than 4,300, and the fish rearing area to have increased from the 47,000 mu of 1984 to more than 70,000 mu. In 1984, Zhang Xuehe [1728 1331 3109], the head of a household specializing in the rearing of fish in Helan County, built more than 200 mu of fishponds in which he produced more than 2 million fish for autumn stocking in the same year, yielding 7,000 jin of mature fish.

During the Sixth 5-Year Plan, the region steadily intensified both aquaculture research and the dissemination of techniques. The autonomous region set up an aquaculture research institute and stations for the dissemination of aquaculture techniques. All prefectures, cities, and counties (or suburban areas), as well as some counties in mountain regions set up aquaculture work stations in the preliminary establishment of a system for scientific aquaculture research and the dissemination of techniques. Experiments conducted by the aquaculture research institute in "early reproduction" of reared species succeeded, and results were used in production. In 1984, more than 9 million fry were produced in this way, and in 1985 the number rose to 12 million fry. Following 2 consecutive years of large-area experiments in producing bumper fish harvests in Zhongwei, Yongning and Helan counties, net yields of more than 400 jin per mu were achieved. Fairly good results were also achieved from experiments in the rearing of fish in rice paddies, with yields of more than 30 jin per mu. In addition, techniques for the growing of fine azolla have been widely disseminated and fine azolla has become an important source of green feed on most state-owned fish farms. Departments concerned have also concentrated on the production of "early," "large" and "fine" fish breeds as ways of making breakthroughs in expansion of the fish rearing industry. In 1985, 250 million fry were bred early and used to stock waters, double the number in 1984. Large fish breeds also increased from 30 percent of the total in 1983 to 70 percent in 1985.

9432

CSO: 4007/234

QINGHAI

FORECASTS FOR 1986 FARM MACHINE, IMPLEMENT SALES

Beijing ZHONGGUO NONGJIHUA BAO in Chinese 9 Dec 85 p 7

[Article by Wu Fengqi [0702 7685 1477]: "Analysis of Factors Influencing Sales During 1986 in the Qinghai Provincial Farm Machinery Company System"]

[Text] Net sales of machinery in Qinghai Province have climbed steadily year after year since 1981. In 1984, net sales amounted to 42.5 million yuan, and estimates for 1985 call for a figure of 50 million yuan, up 17.6 percent from 1984, and more than two times again as much as the 1981 figure. Since Qinghai Province's economic, technological, and educational standards are relatively backward, and since the province has a poor economic foundation and little accumulated wealth, it has developed swiftly and its growth rate has been fairly high. Furthermore, as a result of the liberalization of credit during the first half of 1985 by the Bank of Agriculture, there has been more capital construction, township and town enterprises have developed fairly rapidly, and peasant and herdsman enthusiasm for participation in industrial sideline occupations and transportation has had an unprecedented upsurge. Both demand for farm machinery and purchasing power have increased extraordinarily, the volume of sales reaching a peak. It is estimated that supply and marketing of farm machinery throughout the province in 1986 will decline somewhat from 1985; however, the extent of decline will not be too great for the following reasons:

1. Qinghai Province's rural villages and pastoral regions have had bumper crops for successive years. Peasants and herdsman have the desire to buy machinery and a certain amount of purchasing power to buy it.
2. Source of supply are fairly ample. Shortages of sought-after goods are becoming less and less frequent. Right now, a certain quantity of Changzhou hand tractors as well as large and medium size tractors are available from inventory.
3. As a result of the decline in sales of farm machinery during the first half of 1985, plus the dominant position that the farm machinery company holds, forecasts for 1986 call for a reduction in the number of units dealing in farm machinery, and a decline in transactions in other than principal channels.

4. As a result of the rapid increase in farm machinery and implements--particularly small farm machinery and implements--in recent years (the number of small tractors owned having doubled during the Sixth 5-Year Plan), during 1986, the peasants want list will be limited to fine-quality name-brand products for which it will be difficult to satisfy demand. As a result, sales volume will decline.

5. As a result of the fine quality service campaign and the diversification that the farm machine company has launched, sales volume for products other than farm machinery will continue to increase. Forecasts call for an increase of approximately 15 percent over 1985.

In view of the foregoing situation, it is anticipated that mechanized farm machinery and implements will be approximately 20 percent less than in 1985; there will be a slight decline in power used in agriculture, in drainage and irrigation machinery, and in agricultural and sideline products processing machinery. Partial mechanization, maintenance and repair, and spare parts will continue at the 1985 levels. Commodities other than farm machines will increase by approximately 15 percent over 1985. Net sales volume in 1986 for the province as a whole may drop 10 percent from the 1985 level, but will still exceed the 1984 level.

9432

CSO: 4007/234

SHAANXI

#### STEPS TAKEN AGAINST WATER CONSERVANCY PROJECT VANDALISM

Beijing NONGTIAN SHUILI YU XIOSHUIDIAN [IRRIGATION AND DRAINAGE AND SMALL HYDROPOWER STATIONS] in Chinese No 11, 30 Nov 85 p 3

[Article: "Shaanxi Adopts Measures To Deal Firmly with Vandalism of Water Conservancy Projects"]

[Text] There has been a lot of precipitation in Shaanxi in recent years, and the utilization rate for water conservancy facilities has dropped somewhat. In addition, after the rural agricultural production responsibility system was implemented, no responsibility system was settled upon for water conservation management. Water conservation management work has slackened to a certain degree, in some cases so much so that no one is tending the water conservancy projects. Some unlawful elements have taken advantage of this situation to stir up trouble and vandalize water conservancy installations. According to incomplete statistics, in the past half-year or so damage or theft has affected 27 kilometers of high-tension power lines, 3,300 kilometers of low-tension power lines and communication lines, 360-plus transformers, more than 1,850 electrical machines, over 1,670 water pumps, 44,000 meters of steel pipes and rubber hoses, and 240,000 blocks of concrete liner; more than 3,500 kilometers of irrigation ditches have been demolished and planted over; and 30 million-plus yuan worth of direct economic losses have been incurred. The region most seriously affected by vandalism to water conservancy projects is the central Shaanxi plain. Damages are particularly concentrated in field projects below lateral canals in the medium and large irrigation districts, and in well station water conservancy projects everywhere. These destructive activities have already brought grave consequences; in 1984 the effective irrigated land area declined 1.54 million mu due to human vandalism, water damage, capital construction on the land, and so forth. There are now an additional million or more mu of effective area where we cannot draw water in a normal fashion for irrigation.

Shaanxi's provincial party committee, government, and departments concerned all attach great importance to curbing vandalism on water conservancy installations. In the spring of 1985, after investigating the state of vandalism to water conservancy facilities on the central Shaanxi plain, the central provincial government office issued "A Circular on Resolutely Curbing Vandalism to Water Conservancy Facilities" at the beginning of June. On 17 June the provincial people's government also issued "An Urgent Notice on

Resolutely Curbing the Evil of Vandalism to Water Conservancy Facilities, and on Making Active Preparations for Drought Relief." These documents called upon the leading comrades of every county government to take command and send a group of cadres out for a month to divide up the work and mobilize the masses for action. Section by section and place by place, they were to carry out a survey, investigate the incidences of vandalism, and quickly restore the damaged water conservancy installations. Thereafter, at conferences concerned with the problem, the provincial party committee and the provincial government many times emphasized that we must do this job resolutely and strive to be effective, just as we would in rooting out fake medicines and counterfeit goods. Between 10 and 20 July provincial water conservation departments also dispatched five task groups to various locations, and at the same time provincial departments of agriculture and animal husbandry, departments of public security, supply and marketing cooperatives, and commerce departments also combined their functions to send out task groups, coordinate actively with each other, take prompt action, and prod every locality to launch investigations into vandalism at water conservancy facilities.

Based on incomplete statistics from Weinan, Xianyang, and other prefectures and cities, after a little over a month of work more than 900 cases have been recorded for investigation and prosecution. Investigations have been completed on 397 cases and 299 offenders were detained. Among these there were 18 groups, and 64 people were arrested, 44 were tried, 27 were incarcerated, and 21 were sentenced. Zhang Tianwen [1728 1131 5113], the criminal responsible for the most serious vandalism to water conservancy facilities, broke 34 transformers and caused 100,000 yuan worth of economic losses in Wugong, Ganxian, Xingping, and so forth, to a total of 34 different villages across 10 counties. After he was caught everybody was happy. After the Zhang Fushun [1728 1381 7311] ring was rooted out, which had committed 81 offenses and stolen 12,000 meters of electric lines, the masses responded with widespread acclaim.

Shaanxi has made some progress in curbing vandalism to water conservancy facilities, but in some areas the work is not yet on a solid foundation, measures are ineffective, and this evil vandalism has not yet been completely checked. The provincial government asks that strict investigation of water conservancy vandalism continue everywhere. The unlawful elements who engage in this vandalism must be severely punished. Theft ringleaders, habitual criminals in these theft rings, and other criminal elements who engage in abominable behavior should be publicly arrested and judged, and restrained according to law. Simultaneously, we must intensify our overhaul and cleanup of procurement work on obsolete goods and materials, and we must firmly attack and mercilessly punish those profiteers who match up machine users with theft rings and cut middleman deals for their own profits.

12510  
CSO: 4007/180

SHAANXI

SHAANXI'S KEY MARKET QUOTATIONS

Xi'an SHAANXI RIBAO in Chinese 25 Jul 85 p 2

[Text]

Shaanxi's Key Fair Market Quotations  
(Market Administration Department of the Provincial  
Industrial and Commercial Administrative Bureau)

Price unit: yuan

Price quotation date: 20 July 1985

Commodity	Unit	Specifications	1	2	3	4	5
Rice	jin	Middling	0.38	0.28	0.30	0.24	0.30
Wheat	jin	Middling		0.20	0.21	0.19	0.25
Corn	jin	Middling		0.15	0.11	0.18	0.10
Soybean	jin	Middling	0.40	0.37	0.28	0.39	0.38
Raw peanut kernel	jin	Middling	1.10	1.10	1.00	1.16	1.10
Rapeseed oil	jin	Middling			1.45	1.50	1.50
Pork	jin	Middling					
		with bone	1.60	1.25	1.20	1.20	1.10
Mutton	jin	Middling					
		without bone		1.80	1.40		
Egg	jin	Fresh egg	1.15	0.98	1.00	1.30	0.90
Live hen	jin	Middling		1.30	1.10	1.30	0.85
Carp	jin	Middling fresh		2.50	2.00	2.80	
Apple	jin	Middling	0.45	0.50	0.30	0.35	0.30
Watermelon	jin	Middling	0.20	0.25	0.17	0.20	0.15
Green pepper	jin	Fresh		0.30	0.20	0.15	0.20
Potato	jin	Middling	0.10	0.12	0.08	0.06	0.07
Green Chinese onion	jin	Middling	0.18	0.06	0.05	0.10	0.10
Tomato	jin	Middling		0.13	0.12	0.06	0.12

Commodity	Unit	Specifications	6	7	8	9	10
Rice	jin	Middling			0.21	0.29	0.30
Wheat	jin	Middling	0.26		0.20	0.23	0.21
Corn	jin	Middling	0.14	0.15	0.17	0.14	0.11
Soybean	jin	Middling	0.30	0.30	0.38	0.37	0.36
Raw peanut kernel	jin	Middling			1.05		
Rapeseed oil	jin	Middling	1.50	1.55	1.50	1.55	1.60
Pork	jin	Middling					
		with bone	1.20	1.30	1.10	1.20	1.10
Mutton	jin	Middling					
		without bone	1.60	1.15			
Egg	jin	Fresh egg	0.96	0.95	1.20	0.90	0.88
Live hen	jin	Middling		0.90	1.30	1.25	
Carp	jin	Middling fresh			2.80		
Apple	jin	Middling		0.30	0.40	0.20	0.20
Watermelon	jin	Middling	0.25	0.13	0.10	0.18	0.25
Green pepper	jin	Fresh	0.20	0.18	0.08	0.24	0.30
Potato	jin	Middling		0.10	0.05	0.10	0.05
Green Chinese onion	jin	Middling		0.08	0.07	0.12	0.05
Tomato	jin	Middling	0.15	0.08	0.05	0.14	0.15

Key:

1. Tumen, Xi'an City
2. Jianguo Road, Baoji City
3. Renmin Street, Weinan City
4. Belguan, Hanzhong City
5. Yabai, Zhouzhi County
6. Yihe, Suide County
7. Xing Town, Pucheng County
8. Chengguan, Chenggu County
9. Qi Town, Mei County
10. Chengguan, Shanyang County

9335

CSO: 4006/958

SHANDONG

PRODUCTION, SALES OF CASH CROPS ANALYZED

Jinan NONGYE ZHIGHI [AGRICULTURAL KNOWLEDGE] in Chinese No 22, 20 Nov 85 pp 24-25

[Article by Zhan Shuyi [2069 2885 3015] of the Shandong office of the Ministry of Agriculture: "Analysis of the Situation in Shandong's Major Cash Crops"]

[Text] After the readjustments in the structure of agriculture over the past year, there have been major changes in production, supply, and demand for Shandong's major cash crops. In order that everyone may understand in a timely fashion the market situation for the various farm products, accurately analyze development trends, further improve next year's readjustments in the structure of agriculture, and reduce uncertainty in farm production and leadership, the following analysis of Shandong's major grain, cash crop, and truck farm production and sales is provided.

1. Grain Crops: In recent years, Shandong's grain production has been developing rapidly. This year the per capita grain output is projected to surpass 800 jin. Except for a few units which have suffered setbacks, there is overall realization of self-sufficiency in grain, with some areas reporting some surpluses. But from the standpoint of the nation as a whole, which has seen rather severe disaster-related shortages in the provinces of the northeast, supplies are tighter than they were last year when there was a relative surplus. At the present time, market shortages in all areas are rather large, primarily due to imbalances brought about between production and transformation. Of course there are circulation problems as well. Over the long term, with the rise in the people's standard of living and development of livestock and food-processing industries, present grain is far from fulfilling demand. Therefore, realistic and effective measures must be taken to promote farmer enthusiasm for planting grain. This is a major issue effecting national plans and the livelihood of the people. Among grain crops, of paramount importance is to get control over wheat production. This is not only because wheat output is high and stable, quality is good, and the commodity rate for it is high, but also because wheat is the primary farm crop. If wheat is well managed, stable grain increases can be assured, the multiple-cropping index goes up, and development of cash crops and other crops is promoted. Over the last 2 years the area of wheat plantings in Shandong has gradually expanded. The major thrust is toward increasing unit yields and quality.

Corn is Shandong's primary feed grain source. It is of pivotal importance in the development of animal husbandry. Moreover, export has opened a new sales route. Over the past half year, the market price has gone up across the board.

Thus, the prospects for corn production are considerable, and appropriate development can go forward. This is especially true in the region bordering the Huang He, where natural conditions are good and the potential for developing livestock production is great. There should be affirmative expansion of corn in some of that area. Yam beans have been removed from state procurement this year and the Shandong planting area is off almost 2 million mu. Sales avenues in areas of high concentration are constrained as well, and next year calls for even more controls are in the offing. Since soybean area and total production have been going down for the past several years, some localities have begun to show shortages. International demand is also high. Moreover, as the people's living standard continues to rise steadily, soybean consumption may go up. Thus, production should gradually be restored and developed from now on; and planting area should be expanded appropriately in the coming year. Market conditions are also good for rice, millet, sorghum, and assorted small grains; and these should be developed as appropriate to local conditions. Moreover, demand for Shandong's beer barley is growing and most of the product is now brought in from outside. All areas can go forward to adopt, test, and vigorously expand plantings.

2. Cash Crops: Cotton and tobacco within fixed state planning procurement should not show much change in demand in the near future, and production arrangements should be strictly linked to state planning and distribution. The nation has expanded plantings of peanuts this year by over 15 million mu, and total production may rise 30 percent. Shandong's plantings have increased by over 4 million mu, for a total projected production of 14 million dan. From the present standpoint, sales should be no problem. It is projected that even if plantings are expanded by 1 or 2 million more mu next year, sales should hold up. The state experienced a shortage of red hemp last year. This year many provinces devoted areas to considerable increases, and the market was suddenly glutted with supply exceeding demand. Shandong's plantings jumped from 200,000 mu last year to over 1.2 million this year, and projections are for a possible total yield of over 5 million dan. The province's actual demand is around 3 million dan, so over 2 million dan is surplus. There should be appropriate reductions next year, with plantings being determined by demand. Other cash crops should be developed in a stable fashion in accordance with market demand and local conditions.

3. Truck Crops and Melons: This year's overall vegetable market is: low supplies of major truck crops and high prices. Significant increases in small truck crops, with prices steady overall with some rises. The primary reason for reductions in large truck crops is last year's surplus of Chinese cabbage which led to considerable losses by truck farmers, who reduced planting areas. Moreover, yields of truck crops were down in the three northeast provinces, and the amount brought in from Shandong should be up from last year. The price of Chinese cabbage may go up significantly. However, the markets of the northeast are very unstable, with annual fluctuations of some magnitude in Chinese cabbage imports, so there must not be too much reliance on external markets. Based on the province's internal market demand, over and above appropriate increases in areas developed to certain major truck crops, small truck crops can be developed, and areas devoted to nurseries protected. Attention must be paid to appropriate crop-rotation arrangements to adjust for seasonal variations

in supplies. As for melons, Shandong's major area is devoted to watermelons. This year's planting was 1.06 million mu--up more than 400,000 from last year. The market has always been good and prices are relatively high. There should be appropriate developments in the coming year.

12303/7051

CSO: 4007/218

19 March 1986

## SHANDONG

## SHANDONG STEADILY INCREASES GRAIN OUTPUT

Beijing RENMIN RIBAO OVERSEAS EDITION in Chinese 21 Nov 85 p 2

[Article: "Grain Is at the Heart of Agricultural Readjustment in Shandong, the Planted Area Is Stable, and Output Has Risen Year After Year"]

[Text] Reporter Zhang Qijun [1728 6386 0689] reports that the Shandong Province CPC Committee and Shandong Provincial Government have not relaxed grain production during readjustments in agricultural structures and that they have laid a solid foundation for comprehensive invigoration of the rural economy.

During the Sixth 5-Year Plan, total grain output in Shandong Province has grown at a 6-percent annual rate. Total grain output during this period was over 270 billion jin, an increase of more than 40 billion jin over the previous 5 years. The amount of grain available per capita in Shandong has risen from the 1980 figure of more than 640 jin to more than 810 jin in 1985. Even more pleasing is that the well-known "big beggar household," the northwestern region of western Shandong, has moved out of the past situation of net annual consumption of more than 2 billion jin of unified sales grain and shifted to the sale of more than 2 billion jin to the state. There is a preliminary self-sufficiency and surplus in grain, which has guaranteed the vigorous development of economic work and all activities in rural areas. Cotton and peanuts are examples. During the Sixth 5-Year Plan, Shandong produced more than 114.1 million dan of lint cotton and more than 73.3 million dan of peanuts, up by more than 90.76 million dan and more than 78.48 million dan, respectively, over over the previous 5 years. The key to Shandong Province's ability to achieve stable growth in grain output lies in the establishment of a correct guiding ideology by the Shandong CPC Committee and Shandong Government during readjustments in agricultural structures. After making substantial breakthroughs in grain production over the past few years, Shandong has seen a shrinkage in the area planted to grain in some areas and a trend toward cash cropping. The Shandong CPC Committee and government noted soberly that Shandong is a large province with a population of more than 76 million and that a solution to the food problem certainly must be established within the province. A problem in grain would mean that cash crops would lose the basis for progress and that agriculture as a whole also would lose its footing. Moreover, the development of industry and breeding places ever greater demands on grain. For this reason, the Shandong CPC Committee and government have integrated the utilization of natural advantages with acceptance

of state plans and adaptation to market demand and clearly proposed the guiding ideology of "stabilizing areas, attacking monoculture, raising total output, and striving for a comprehensive bumper harvest." During the Sixth 5-Year Plan, the area planted to grain in Shandong stabilized at around 70 percent of the total area planted in crops, which has coordinated the relationship between grain and cash crops rather well. Although Shandong was hit by several unexpected natural disasters in 1985, total grain output may reach or exceed the all-time highs set in 1984.

They have paid attention to clearing up circulation channels and resolving the peasants' "difficulties in selling grain." Beginning in 1984, for example, grain departments throughout Shandong adhered conscientiously to the principle of opening up purchasing and not restricting or refusing purchases. They purchased a total of 16.9 billion jin of grain, and the problem of "difficulties in selling grain" did not appear in most areas. They also paid attention to focusing on grain conversion and gradually achieved benevolent cycles in cropping and breeding.

To attain even greater development of grain production during the Seventh 5-Year Plan, the Shandong CPC Committee further emphasized at the recently convened Shandong CPC Committee Work Conference the great significance of focusing on grain production in some areas with rather developed industry and sideline production that were neglecting grain production and where the sprouts of disorganized occupation of cultivated land had appeared. The Shandong CPC Committee and government decided that in addition to sensibly expanding the area of grain fields, they also are employing concrete measures to encourage grain production.

12539/7687

CSO: 4007/124

SHANDONG

SHANDONG INCREASES AGRICULTURAL OUTPUT

Beijing RENMIN RIBAO OVERSEAS EDITION in Chinese 25 Nov 85 p 3

[Article: "Shandong Has a Comprehensive Bumper Harvest in Agriculture, There Is an Obvious Increase in High Quality Agricultural Products--Fine Grains Account for 60 Percent of Total Grain Output in Shandong for the First Time in 1985"]

[Text] There has been an increase in fine grains, fine tea, improved varieties of cotton, oils and other high quality products among the farm and sideline products placed on the markets and supplied for export by the peasants of Shandong, who had a comprehensive bumper harvest in agricultural production in 1985.

Wheat production as a proportion of total grain output in Shandong rose from the 1978 figure of 35 percent to the 1985 figure of 48 percent. Shandong expended the area planted to grain by more than 2 million mu in 1985 and grain output grew by more than 1 billion jin, all of it from wheat. This has led to historical changes in the structure of grains in Shandong. Output of wheat, millet, paddy and other fine grains reached 60 percent of total grain output in Shandong in 1985. Apart from a few mountainous areas and regions with special difficulties, the peasants have made fine grains the main type of grain. Sweet potatoes have been removed from the grain varieties sold to the state.

The area planted to large kernel peanuts especially for export surpassed 1.2 million mu and output exceeded 4 million dan. Green Chinese onions, garlic and other special products from Shandong achieved new development during 1985.

The increased market demand for high-protein lean meat has led to rapid development of grazing livestock. Inventories of cattle and sheep in 1985 were up by 10 percent over 1984, and rabbits were up by 63.7 percent. In 1984, there still were very few lean pigs but 400,000 were taken out of inventory in 1985. Poultry such as geese and ducks have grown very quickly and already have reached more than 20 million. Flocks of geese and ducks are now found throughout rural areas.

Marine products and freshwater fish in short supply have developed in a major fashion in 1985. Rongcheng, Muping, Changdao, Wendeng, Rushan and other

counties have established high-output base areas for prawn, scallops, sea cucumbers, and oysters.

Shandong has readjusted industrial structures according to changes in market demand, and agricultural, forestry, animal husbandry, sideline, and fishery products are developing in the direction of higher quality, which has brought about two new changes: they have adapted to export requirements and have even broader sales avenues, and results in agricultural production have improved, as agricultural product results have increased by 10 percent.

12539/7687

CSO: 4007/124

SHANGHAI

IMPROVEMENT OF SHANGHAI FOOD INDUSTRY REPORTED

Beijing RENMIN RIBAO OVERSEAS EDITION in Chinese 16 Nov 85 p 3

[Article; "Shanghai's Food Products Industry Has a New Appearance--Import Technology To Transform Enterprises"]

[Text] The food industry in Shanghai has focused on the use of advanced foreign technologies and transformation of old enterprises, and changes in the production situation throughout the industry have been made within a short 2 or 3 years' time. Most plants in the Shanghai food industry are old enterprises. Over the past several years, they continued using their backward equipment and outdated technologies and were very unadapted to the need for development of markets and exports. In recent years, this industry has imported more than 20 production lines and more than 80 pieces (and sets) of key equipment. At the same time, they organized their own technical forces and carried out technical transformation in more than 80 percent of the old enterprises. For a long time, Shanghai had only a single hard candy product with poor competitive abilities. In 1984, the Shanghai Yimin No 6 plant and the Guanshengyuan Food Product Plant imported two different hard candy production lines. Hard candy in Shanghai now comes in four series: candy filled with Vitamin C, candy filled with chocolate syrup, coffee suryp and other oils and fats, candy filled with xiantao, fresh lichees, prunes and other fruit jellies, and candy filled with famous liquor centers and other liquids. At the first large scale food products exhibition in 1985, "Xiantao-filled" hard candy won the gold medal for total candy sales. In July, Shanghai's filled hard candy also broke into international markets.

During the transformation of old enterprises, the Shanghai food industry took aim at international markets and strove to export more and earn more foreign exchange. The Taikang Food Plant is one of the key plants in Shanghai that exports tins and cakes, but most of its equipment dates from the 1930's and 1940's. The food industry helped this old plant to import soft can production lines, Huaifu cake production lines and key equipment for can production, which greatly improved the technical levels for production of export products. After the Huaifu cake automated production line went into operation, automated control was achieved throughout, from the crushing of raw materials to product packaging. Sanitary conditions reached international levels and they created \$4 million in foreign exchange, which was equivalent to the profits from 15 similar production lines. Development of the Shanghai food industry has begun

to change the people's traditional food structures. In recent years, nutritional, curative and convenient food products have become increasingly prevalent and the Shanghai food industry has begun to produce more than 220 types of new food products like rice flakes, pork-boiled rice, imitation flavorings, beef monosodium glutamate, blood-enriching soft candy, and so on. This has occurred infrequently in the Shanghai food industry.

12539/7687

CSO: 4007/124

SHANGHAI

DEREGULATION OF VEGETABLE PRICES DISCUSSED

Shanghai SHANGHAI JINGJI [SHANGHAI'S ECONOMY] in Chinese No 5, 15 Oct 85 pp 15-16, 20

[Article by Wang Qilong [3769 0366 7893]: "Some Issues Involved in Further Deregulation of Vegetable Prices"]

[Text] Deregulation of the vegetable market and normalizing vegetable prices are major steps now underway in economic reform which relate intimately to the livelihood of the people. Shanghai began to implement the policy of "regulating eight and deregulating two" on 1 May of this year. That is, regulation continued on the major vegetables among 22 varieties which constitute 80 percent of the market, with state-run vegetable companies entering contracts with villages and brigades. The other 20 percent was deregulated, comprising minor vegetables among the 22 including early-maturing varieties and others of different color and size, which were allowed to freely enter the market at prices set by the trade. Over the following two months following implementation, the assigned purchase price for the state-run vegetable market went up 18 percent from what it had been in the same period the previous year, while the retail price went up 34 percent. Price levels overall were stable. But something new which happened was a clash between the "regulated" and the "deregulated" in the "regulating eight and deregulating two" policy. The "regulated" sector could not be regulated. Difficulties arose in performance on fixed-procurement contracts signed by production brigades with the state-run vegetable companies. Truck farmers were unwilling to sell vegetables to the state-run companies which they could sell on the open market. According to our understanding, as of the end of June there were already between 70 and 80 brigades which had breached their fixed-procurement contracts. Indications in the Huajiang Road market which is currently Shanghai's largest wholesale vegetable exchange revealed that May assigned procurements of Chinese cabbage were only 10 percent of original planning levels, while the same for cucumbers was a mere 27.8 percent. June procurements of Chinese [baicai] young white Chinese cabbage [jimacai] were at the 40-percent level. As for the "deregulated" sector was concerned, these were prices which were uneasily controlled and which rose extensively. Thus, there were some comrades in the industry who alleged that "what was supposed to be regulated could not be, and what was supposed to be deregulated dare not be." What, then, was the cause of such a situation and what needs to be studied further in order to clear up the situation in vegetable pricing? Not long ago, we directed ourselves to an investigation of these problems. The cause appears to be multifaceted; and in any further deregulation of vegetable prices, the following three issues must be faced:

1. Requisite adjustments in state-run assigned-procurement contracts must be made to bring some sense to the pricing of vegetables as a basis for further deregulation. As far as the previous practice of always lowering prices when unified procurements then in effect were to be made, the reaction of truck farmers was that "raising vegetables makes less economic sense than raising grain or cotton." This time around they gave the following assessment: planting vegetables should be regulated on a frequent basis--the amount of labor that goes into planting vegetables is much higher than that going into planting grain and cotton. Planting one mu of vegetables takes 120 to 140 labors (man-days) while planting grain and cotton only requires about 50. Comparing the labor force required to plant 2 mu of vegetables to that required to plant 5 mu of cotton: the gross income on a year's worth of vegetables is about 496 yuan. Farm expenses take 208 yuan of that for a clear profit of  $496 - 208 = 288$  yuan. A year's income for labor force is 576 yuan ( $288 \times 2$ ). Figuring on a harvest of 120 jin per mu if cotton is planted instead, gross income is 203.82 yuan. In 1 year, a wheat crop can be planted after the cotton is harvested at 480 jin per mu for a gross income of 81.94 yuan. So the total gross income on the two harvest is 285.76 yuan, minus farm expenses of 25 percent, leaving a clear profit of 224.32 yuan. Total income on 5 mu is thus 1,121.60 yuan. Obviously, planting cotton and grain is more profitable than planting vegetables.

Statistics in Huacao Township of Shanghai County reveal that last year three brigades planting grain and cotton had average income in excess of 1,000 yuan per worker while not one vegetable-planting brigades reached that figure. (The highest such brigade had a figure of 958 yuan while the lowest had a figure of only 743.) Moreover, last year was a banner year for vegetables. In addition, planting of grain and corn is seasonal; and in the off-season farmers can devote time to other wealth-creating activities. Conversely, vegetable farming requires constant care and leaves little time for such activities. Thus, in the old days of unified and assigned procurement farmers had little interest in planting vegetables. But once vegetable prices were deregulated and farmers were permitted to market them freely, whenever the exchange price in country fairs topped the state procurement price, the situation referred to at the beginning of this article then occurred.

Huacao Township has done some concrete comparisons in this regard. Within the township, the Chensiqiao brigade, which assigned vegetable fields out to households and deregulated planting and marketing, achieved a selling price which averaged 12.32 yuan per dan between January and June of this year, while the Hongguang brigade which had entered a contract with a state-run vegetable company and sold at the planning price only made 7.19 yuan per dan. This glaring discrepancy left farmers willing to take a greater risk and head for the marketplace instead of to the state-run procurement station. It is not difficult to see that the unwillingness of truck farmers to perform on their sales contracts was not brought about by deregulation of vegetable prices but by a new manifestation of an old problem. Obviously, with the gradual deregulation of the price of vegetables, the state-run companies are not going to have vegetables to sell to their customers if they fail to solve immediately the problem of depressing pricing at procurement. It follows that there is no point in even mentioning a role for the state-run vegetable market in arranging the

market and keeping down the prices of goods; and it further follows that any increase in deregulation of the price of vegetables is not going to go smoothly. Therefore, the prices set in contracts with state-run companies must be adjusted in such a way as to bring "deregulation" and "adjustment" into line with one another so that pricing of vegetables becomes more sensible.

2. Attention must be paid to making more improvements in the market mechanism and promote normal competition, which will create the necessary external conditions for whatever further deregulation of vegetable prices is necessary. Deregulation of vegetable prices implies that laws of pricing and of market supply and demand will automatically lead to adjustments in prices. Under such conditions, formation of reasonable prices cannot be divorced from the role of the market mechanism. The reason that current pricing of vegetables is in a predicament between regulation and deregulation is, among other factors, related to the fact that the market mechanism for price formation is still imperfect. From the standpoint of market supply, there are still very few farmers who have the capability to go directly into urban regions to market their goods freely. Under the best of circumstances transportation is by hand-held tractor. Generally it involves trucking behind a bicycle, which means that capacities are limited. There are even fewer small traders and peddlers who go to rural and township markets to buy vegetables to take themselves to urban areas to sell. From the standpoint of market sales, there are still few outlets for trading in country market vegetables in the city and no real feedback mechanism for market information in place. Thus, vegetables going to the free market make up a small part of the whole, both in quantity and variety; and there is still little of the competition necessary between truck farmers in the free market. This is especially true in the off-season, where a handful of sellers can get a corner on trading in the country markets and form into a covert "monopoly." As a result, there is little chance for any self-adjustment in pricing in the country markets to hold down prices. Therefore, conditions must be affirmatively created in the areas of improving transportation and shipping for truck farmers and in increasing market facilities for trading in country market vegetables, so that there will be even more truck farmers who have the ability to enter directly into circulation. This will gradually bring some sense to vegetable pricing through the action of the market mechanism.

3. The relations between the state and the state-run vegetable market must be elucidated and further improvements made by the state in tuning mechanisms for the vegetable market. There are still problems with the market-adjustment role being played by the state--in particular in the use of realistic economic methods to bring out the primary circulation role of state-run vegetable markets.

First of all, the state's control over the economic activities of state-run vegetable markets is still overcentralized, so that they are hindered in playing an intervening role in market adjustment and in holding down prices. We should distinguish between adjustments by the state and adjustments by the state-run vegetable markets. The former intervention and adjustment takes place with the interests of the state as a whole as a starting point. It must consider not only the interests of consumers and the ability of consumers to handle price increases, but also the interests of truck farmers and vegetable sellers. As a result, it is a "comprehensive tuning" of the interests of all three. By

contrast, the implementation of an economic accounting system in state-run vegetable markets and especially the stress on linking operating results up with the material interests of market workers will always devolve to a consideration of what is best for the state-run market itself. Objectively speaking, it would be difficult for the state-run vegetable market to take upon itself entirely the economic agenda of the state itself. The state-run market serves primarily to implement the intentions of the state at a higher level through the activity of buying and selling vegetables. If its own economic interests are going to be diminished, this will assuredly influence its own amenability to participate in market adjustment. The current version of the problem is exemplified in reports from the Meizhou Road market in Yangpu Prefecture, where in the latter part of June there was a severe shortage of wild rice stems and the purchasing station of the state-run vegetable company market was unable to get to the root of the supply problem. It sent people all over to make purchases, and costs were from 14 to as much as 18 yuan per dan, while the retail list price set by the state was 17 yuan. The market had to sell at the state-set price and made little profit. In mid-August, a shortage of winter melons occurred and the country market exchange price per jin topped 0.18 to 0.20 yuan per jin. The state-run market enlisted people to send to Chaozhou and Jinhua to make purchases including freight. Costs reached 8.5 fen per jin, while the regulated retail price was 6 fen per jin. Even with a 3 fen subsidy provided by higher authorities in the responsible department the state-run market made no profit and even suffered losses. If this continues for very long, how are they to maintain interest in participating in market adjustment and in holding down prices? Therefore, the relations between the state and the state-run vegetable markets must be reordered, giving the markets the necessary authority to set and change prices. At the same time, supervision must be strengthened so that they can be flexible in carrying out their business and reasonable concern paid to their own economic interests as they perform their price-depressing role.

A second issue is that the ways the state goes about its adjustments are not resourceful, relying primarily on the method of "price subsidies" to maintain low price levels for vegetable sales. That is, the state-run vegetable company runs its wholesale operations by buying in at high prices and selling in lots at low prices to the various retail markets, making up the difference in subsidies from the state treasury.

Alternatively, rural governments are cajoled into taking subsidy funds out of the profits of township and town industries to subsidize vegetable production as an incentive to truck farmers to sell vegetables to the state-run vegetable companies. As an example, in Yangjing Township in Chuansha County, the township- and brigade-level authorities recently decided to subsidize leafy vegetables being sold to the vegetable company during the off-season months of August and September at 3 yuan per dan. These efforts played a major role in controlling jumps in vegetable prices and still continue to do so today. But at the same time, it was still necessary for the state to draft relevant laws and regulations to strengthen the process of market regulation, preserve adjustments, and hold down prices. For example, small-time operators were buying up vegetables at low prices from state-run vegetable markets and later selling them at high prices in country market exchanges, thus putting state subsidies

into their purses without adjusting or holding down prices. The legal system must be utilized to put a stop to such occurrences. Fixed purchase contracts entered into between state-run vegetable companies and villages and brigades should in addition to being based upon principles of mutual benefit and willingness be given specific performance by the legal system. Policies on giving tax preferences should be studied and enacted for those vegetable markets showing positive participation in market adjustment and effectiveness in holding down prices. All in all, the problem of a lack of resourcefulness in state adjustment methods must be solved so that further reforms in vegetable prices can proceed smoothly.

12303/7051

CSO: 4007/246

SHANXI

VICE GOVERNOR BAI QINGCAI ON RURAL SITUATION

Taiyuan SHANXI RIBAO in Chinese 8 Dec 85 p 1

[Article: "Vice Governor Bai Qingcai [4101 3237 2088] Passes Word to Province's Rural and Urban Populace that Grain Situation Is Good but that Production Must Still Be Stressed"]

[Text] Vice Governor Bai Qingcai recently stated that Shanxi's grain is not so excessive as to fear selling difficulties; however, it is not in short supply either, and there is no cause for concern. Everyone should have accurate information.

He stated that ever since the 3d Plenum of the 11th CPC Central Committee, the grain situation has been good in Shanxi, as is true nationwide. Last year's total output in the province amounted to 17.44 billion jin--up 3.3 billion from 1978--for a per capita average of 670 jin. These increases in production resulted last year in the beginnings of a balance between purchases and sales. However, there is still a need to substitute higher for lower qualities and adjustments in types grown. Oil production also showed extensive increases, quadrupling from 60 million jin in 1978 to more than 230 million last year. With stable increases in grain and oils as a foundation, sales have been good. In 1978, grain purchases under assigned level prices and negotiated prices increased 3.1 billion jin, from 2.1 billion to 5.2 billion. That is to say, output increased 3.3 billion jin in just a few years. Assigned procurements by grain departments increased 3.1 billion jin, which is by far the greatest proportion. So-called selling difficulties are just sporadic and due to the temporary phenomenon of storage inadequacies. Oil procurements increased last year from the prior 20 million jin to over 80 million (including negotiated purchases). Cereal production and the purchase and sales situation for cereals demonstrates that the living standards of the people of Shanxi have definitely risen. Consumption levels for the province's nonfarm population went from an average of 496 jin in 1978 to 600 last year per capita. When negotiated price purchases are added, it amounts to 742 jin. The quality of most has gone up greatly as well. This year, Shanxi had some local catastrophes, but initial projections are for total output to reach 16.2 billion jin--still a bumper year. Reserves of assigned and negotiated-price procurement assure an abundant surplus for the province even if some grain is not being procured on assignment.

Vice Governor Bai stated that the farmers of the province should be told that per capita standards in grain output for Shanxi are up to national levels; so there is really no problem of overproduction here. All regions must be absolutely wary of information about relaxing grain production because of "selling difficulties;" and should make it clear to farmers that production of grain and oils is a high priority. Fixed-procurement contracts should be fully honored. Once these fixed-procurement contracts have been performed, grain departments shall inaugurate affirmative negotiated-price purchase and sale operations. Grain production should be tackled so that no matter how much is produced, the state can procure it. We must adjust types to suit local conditions, producing wheat and oils, so that we can make up for our shortfalls and also get good prices and improve incomes.

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19 March 1986

## SHANXI

## PROCUREMENT PRICE READJUSTMENT REPORTED

Taiyuan SHANXI NONGMIN in Chinese 18 Dec 85 p 1

[Article: "Reports From the Provincial Grain Working Committee State That Fixed Procurement of Grain Will Be Done on a Three-Year Basis; Fixed Procurement Price To Be Readjusted in Part"]

[Text] The meeting of the provincial grain working committee which concluded on 10 December has put out the word that in the period from 1986 through 1988, fixed procurement contracts for grain will be unchanged. Planned procurement will be maintained for edible oilfats and oils on a year-to-year basis.

As 1986 arrives, the province has issued orders to all localities that urban fixed procurement plans call for 3.08 billion jin. Types for fixed procurement include: wheat, husked rice, corn, sorghum, soybeans, millet, and naked oats. Fixed procurement volumes and types will remain unchanged for 3 years.

Procurement Price: Price for wheat will be set beginning on 1 June 1986 according to the "inverted 2 : 8 ratio." For soybeans, beginning 1 April 1986, the unified procurement price will be adjusted from the present 31 yuan per jin to 34.5 yuan per jin. Price for husked rice, corn, sorghum, millet and naked oats will still be set according to the "inverted 3 : 7 ratio."

Mode of Fixed Procurement: Contract fixed procurement and closed account modes should be unified as much as possible. The principles that whoever signs a contract should close accounts and whoever sells grain should receive payment should be adhered to. Such diverse modes as procurement fixed according to household, granary, and village should be adopted, with emphasis upon procurements fixed by household.

Edible Oil Procurement: The province has determined and passed on to all locales that planned urban procurements of edible oil are set at 100 million jin. Types for procurement comprise: peanut, sesame, cottonseed, rapeseed, linseed, yellow mustard seed, and other oils. The procurement price should be consistently set according to the "inverted 4 : 6 ratio." The price per jin for safflower seed should not exceed 0.4 yuan; and contracts at negotiated prices should be signed with farmers. Procurements of oil products outside of planning should be done as free purchases.

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19 March 1986

SHANXI

## GRAIN PURCHASES FIXED FOR 3-YEAR PERIOD

Taiyuan SHANXI RIBAO in Chinese 13 Dec 85 p 1

[Article: "Provincial Grain Working Commission Releases Information: Grain Procurement Fixed for 3 Years; Partial Readjustments in Fixed Procurement Prices"]

[Text] Reporter Xu Jing [6079 7231] reports that information gleaned from the meeting of the provincial grain working commission which concluded on 10 December 1985 reveals that between 1986 and 1988, grain contracts will have procurement fixed for the entire 3 years. Assigned procurement of edible oils and oilfats will still be under planned procurement at yearly intervals.

As of the beginning of 1986, the state has determined that Shanxi will contract for fixed procurement of a total of 3 billion jin of grain. Fixed procurement plans already issued to the various prefectures and cities are for 3.08 billion jin. Types to be procured include: wheat, unhusked rice, corn, sorghum, soybeans, millet, and naked oats. Volumes and types for fixed procurement are to remain unchanged for 3 years.

Fixed Procurement Pricing: Wheat will be priced according to the "inverse 2 : 8 ratio" after 1 June. Unified procurement price for soybeans will be readjusted on 1 April from 31 yuan per jin to 34.5 yuan per jin. Unhusked rice, corn, sorghum, millet, and naked oats will still follow the "inverse 3 : 7" price ratio.

Mode of Fixed Procurement: Contract fixed procurement should be linked to the accounting mode of procurement as far as possible. The principles that whoever has entered the contract should be given an accounting and whoever sells grain is paid should be adhered to. Diversified contracting with households, granaries, and villages should be adopted, with the emphasis on households.

Edible Oil Procurement: Planned 1985 assigned procurement of edible oils from all prefectures and cities amounted to 72 million jin. In 1986, the state has fixed a figure of 80 million jin for the province. Amounts fixed by the province for all prefectures and cities is to be 100 million jin and for self-sufficiency in edible oils. Types for assigned procurement comprise: peanut, sesame seed, cottonseed, rapeseed, Hu sesame, yellow mustardseed, and other oil types. All pricing will be according to the "inverse 4 : 6" price ratio. Safflower oil shall not exceed .40 yuan per jin for assigned procurement; and negotiated price contracts should be signed with farmers. Beyond planning, purchase and sale of oils shall be unregulated.

SHANXI

SIXTH 5-YEAR PLAN ACHIEVEMENTS IN AGRICULTURE OUTLINED

Taiyuan SHANXI NONGMIN in Chinese 4 Jan 86 p 1

[Article: "Steady Development of the Province's Agriculture During the Sixth 5-Year Plan"]

[Text] The year that just ended, 1985, was the final year of the Sixth 5-Year Plan. What progress did Shanxi Province make in agriculture during the Sixth 5-Year Plan? To find out, this correspondent paid a visit to the Provincial Agriculture and Animal Husbandry Department where comrades told him happily that the Sixth 5-Year Plan period had been the best one since founding of the People's Republic. This was manifested in the following specific ways:

Accelerated Development of Agriculture With Marked Rise in Both Economic Results and the Commodity Rate: Speed of growth of the gross output value of agriculture during the Sixth 5-Year Plan is expected to reach 7.7 percent for a 1.3-fold increase over that of the Fifth 5-Year Plan period. Rural gross social output value reached 9.2 billion yuan in an increase that averaged 13.8 percent per year. Figured in per capita labor terms, the rural social output value in 1985 reached 1,483 yuan, double the 1980 figure. Earnings from rural product sales are expected to reach the 3.65 billion yuan mark in a 2.5-fold increase from 1980.

All the major production quotas in farming and animal husbandry for the Sixth 5-Year Plan were overfulfilled ahead of schedule. Outputs of grain and cotton overfulfilled the Sixth 5-Year Plan quota a year ahead of schedule. Output of oil-bearing crops overfulfilled Sixth 5-Year Plan quota 2 years ahead of schedule. Outputs of other products such as large livestock animals, dairy products, and poultry eggs all overfulfilled Sixth 5-Year Plan quotas by 1 or 2 years.

Substantial Increase in Peasant Earnings: In 1980, peasant average per capita net income for the province as a whole was only 155 yuan. In 1984, it reached a little more than 300 yuan. It is expected to increase further for 1985. For the province as a whole, the problem of sufficient food and clothing has been basically solved.

Preliminary Results From Readjustment of the Structure of Farming and Animal Husbandry: The year 1985 was the first year in the second step of rural

restructuring, and Shanxi Province's industrial structure underwent major restructuring. Now, the structure of the farming industry tends to be more rational. The ratio of grain to cash crops throughout the province was restructured from the 80 to 20 percent of 1983 to 75 to 25 percent in 1985. Animal husbandry has grown by leaps and bounds. Changes have taken place in the makeup of the rural labor force. The labor force employed in farming declined from the 5 million of 1984 to 4.3 million in 1985. In the breeding industry, the workforce increased from the 500,000 of 1984 to 630,000 in 1985. In other industries, the labor force increased from the 300,000 of 1984 to 2.85 million in 1985.

In short, as a result of advances made during the Sixth 5-Year Plan, the whole province has entered a transitional stage from being fairly needy in the past to having food and clothing and heading toward being comfortably well-off. It has also laid a good foundation for realizing the goal of quadrupling output value by the end of the present century.

9432

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19 March 1986

## SHANXI

## SHANXI BOOSTS INCOME OF RURAL HOUSEHOLDS

OW251156 Beijing XINHUA in English 1114 GMT 25 Feb 86

[Text] Taiyuan, 25 Feb (XINHUA)--In Shanxi Province, on Northern China's loess plateau, the soil is not the best for farming and peasants remain poor, although conditions are improving.

With subsidies and investments of more than 100 million yuan, the provincial government has been trying to boost the economy of the area by mining local mineral resources, introducing scientific farming practices, and improving transportation facilities so crops can more easily make their way to markets.

Today the local statistical bureau offered evidence that the measures have worked--the average income of Shanxi's rural residents last year reached 355 yuan per capita, 200 yuan more than in 1980.

A closer look at the figures indicates that improvement in living standards in rural Shanxi has been widespread and rapid since 1980. Poorer families with average per capita incomes below 200 yuan dropped from 44.8 percent to 17.5 percent.

Families with 200-500 yuan average per capita incomes grew from 51.5 percent to 67.1 percent. Families with 500-1,000 yuan average per capita incomes went up from 6.8 percent to 13.1. And those with average per capita incomes higher than 1,000 yuan increased from 0.6 percent to 2.4 percent.

Not too long ago, officials said, many peasants earned less than 100 yuan per person a year.

To help the poorer families out of poverty, the Shanxi provincial government has subsidized 31 mountain counties with 60 million yuan a year and provided interest-free loans to help boost rural industry in these areas.

Relief funds were used to build 204 rural industrial businesses in Luliang Prefecture, the poorest area in west Shanxi, employing 3,400 households with an annual income of less than 200 yuan per capita.

These businesses yielded total output value of more than 10 million yuan last year and made a profit of two million yuan. The annual income of the households reached 600 yuan per person last year.

A crucial cause of the economic improvements here, officials said, has been the current rural economic reform limiting state-ordered production quotas and linking income to output.

"This has freed many peasants to engage in commercial businesses and work in industry," said one official.

By the end of last year, in fact, the province's 347,000 rural industrial businesses and mines employed 2.14 million peasants, accounting for 29 percent of the province's total rural labor force.

These businesses yielded a total output value of 8.57 billion yuan and made a profit of 1.35 billion yuan last year.

The provincial government has also helped unemployed workers in the poorer counties find jobs in mining in other parts of the province.

In one of its most successful projects, the province sent 200 of its top scientists to Shanxi's poorest mountain regions to study local natural resources, train technicians and formulate development plans, which the province then subsidized with two million yuan.

The plans were designed to build the most projects with quickest results for the smallest investment--and that, officials said, is just what they did.

For example, 14 of the scientists are working at a village in Linxian County to teach residents how to cultivate dry land crop and develop animal husbandry.

As a result, the village was able to harvest 1,065 tons of grain last year and the average per capita income of the residents rose to 390 yuan, from a little more than 300 yuan a year ago.

As a result of other provincial investments, bus service now links more than 90 percent of Shanxi's rural areas. Planning has begun on four local railroads totaling 520 kilometers and ten highways, which will connect five remote mountain counties to developed areas.

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SHANXI

BRIEFS

CORN EXPORTS NOTED--According to "Market Information Report," Shanxi will export 1 billion jin of corn next year. Shanxi's corn has become prized on the international market due to its high quality. Recently, the departments of economics and trade and of commerce have issued planning quotas for export of Shanxi corn at 500,000 tons (1 billion jin), or one-fourth of total annual output. Performance of next year's quota will place Shanxi in second place among provinces in commodity exports, which is a good sign for Shanxi's economic development. First, it will bring in \$50 million. Second, it will help alleviate imbalance problems in the province's coarse and fine grains. Once the corn is exported, the state will bring in wheat and husked rice. Third, it will optimize advantages and improve farmer enthusiasm for planting grain to make Shanxi into a production base for the export of corn. Leading comrades in the provincial government have recently called a special meeting to request that all levels of the provincial government and departments concerned make arrangements as early as possible. [Text] [Tianyuan SHANXI NONGMIN in Chinese 16 Dec 85 p 4] 12303/9274

CSO: 4007/219

SICHUAN

## EXPANSION IN AREA SOWN TO HYBRID RICE REPORTED

### Hybrid Rice Area

Chengdu SICHUAN RIBAO in Chinese 25 Dec 85 p 1

[Article: "Road to Modernization of Sichuan's Seed Work Expands; Shanyou No 2 'Withers'; Shanyou 6-3 'Takes its Place'; Area Devoted to Hybrid Rice Expands To Become Largest Percentagewise for Entire Nation"]

[Text] "At the present time Shanyou No 6-3 may completely replace Syanyou No 2, which is suffering from a serious blight, and substitute for it!" This welcome news was put before reporters at the closing session of the provincial working committee on seeds on 19 December by Luo Jirong [5700 4949 2837], president of the provincial seed corporation.

According to the report, Sichuan has brought medium-long grain slow-maturing Shanyou 6-3 from Sanming, Fujian, which is close in growing season to Shanyou No 2, but has a higher cluster rate and ear length. Its maturity rate is above 80 percent. Its grains are large and heavy, and the rice is high in quality. It is blight-resistant, and when set out in the fields can bring yields of approximately 1,000 jin per mu. The best yields may surpass 1,200 jin per mu. This year the test plot area grew to 460,000 mu; and farmers welcomed it. Projections for next year are for up to 15 million mu.

Over the past 7 years, Sichuan's seed work has seen its best period since liberation. At the present time, a system for propagation of improved strains is being put into place throughout the province. The pace of expansion of improved strains is picking up. The approval period has now gone from the 4 or 5 years of the past to 3 years. The rapid spread of improved hybrid rice strains has turned around the situation in which for a long time yields hovered around 500 to 600 jin per mu. It has become the workhorse for Sichuan's grain increases, and the expansion area has already reached 57.7 percent of the total area planted--placing Sichuan first in the nation. Units of the provincial seed corporation have one by one organized 9 experimental projects for 330 new species of crops. Of these, 25 varieties have been approved by the provincial seed-approval commission, and 30 more are set for approval.

The summarization of the experience of the provincial working committee on seeds further illustrates its commitment to a vital seed industry in service of farm production, to a Chinese road to modernization in seed work, a commitment to

improved economic returns bringing together supply and sales, a commitment to self-reliance and to joining together with the state in supporting accelerated creation of a seed system, commitment to a spirit of reform and to opening up a new situation in seed work, to giving Sichuan a quality of operations, and implementation of a seed company which at all levels is a model of service to enterprise operations, which is constantly improving, and which has an ever improving reputation among farmers.

#### Improved Seed Strains Promoted

Chengdu SICHUAN RIBAO in Chinese 25 Dec 85 p 1

[Commentary: "Strengthen the Work of Seed Management"]

[Text] Agricultural crop seeds are special means of production which have live and hereditary functions. The spread of improved strains has an important place and role in increasing farm yields. Therefore, seed production and operations must be managed conscientiously and continually strengthened.

Whatever management systems and regulations hinder productive force in rural economic reforms must be themselves gradually reformed, in order to facilitate development of productive force. Whatever must be relaxed in reforms should be relaxed, and whatever must be managed more tightly should be. Strengthening of seed management and revitalization of the economy must never be placed at odds with one another.

The work of strengthening seed management basically means serious measures to control confusion in seed production and operations, to ensure the interests of the farmer, stop the spread of blights and pests, and promote steady agricultural increases. Sichuan's success in popularizing and implementing the "Regulations for Managing Farm Crop Seeds in Sichuan" has been manifest. Nevertheless, there have still been occurrences of spurious seed replacing genuine, inferior mixed with superior, inconveniencing of farmers, and unauthorized shipment, replication, popularization, and price increases--all of which must be stopped. The production and management of agricultural crop seeds should primarily be the responsibility of all levels of the seed corporation of the Ministry of Agriculture. Hybrid and related strains, seed stocks for various crops, and new varieties which need to be reproduced and spread quickly should all be under the unified planning, production, storage, and supply of the local seed corporation; and no other unit or individual outside of planning should carry out reproduction, control of planting, or management of hybrids or any other related strains. No strain not yet approved or found inadequate is to be popularized. Typical cases of violation of the "Regulations" should be dealt with strictly to ensure the smooth progress of modernizing seed work.

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SICHUAN

## CONSTRUCTION OF COUNTRY TRADE FAIRS ACCELERATES

Chengdu SICHUAN RIBAO in Chinese 13 Nov 85 p 1

[Article: "The Pace of Rural Trade, Fair Development in Sichuan Accelerates-- Make Use of Country Fair Trade To Promote Invigoration of the Commodity Economy"]

[Text] In order to adapt to the development of commodity production and the need for reforms in circulation systems, industrial and commercial administration departments throughout Sichuan Province have accelerated the pace of construction of country trade fairs. The number of trade fairs in the urban and rural areas of Sichuan Province now has grown to 6,620, up by 872 over 1980. The markets cover a land area of 12.14 million square meters, up 1.5-fold over 1980.

The role of urban and market trade has become increasingly obvious as the construction of markets has developed. First, after the trade fairs became an important channel of circulation, they promoted invigoration of the urban and rural economies. The number of commodity product varieties coming to market in urban and rural trade fairs across Sichuan has increased from the 100-plus varieties of the past to more than 1,000 varieties now. Sales in the trade fairs have grown year after year and were up by 27.67 percent between January and September of 1985 compared with the same period in 1984. This is the third instance of substantial growth following that in 1979 and 1980. Second, they are providing large amounts of daily necessities to consumers in cities and towns. According to statistics for more than 400 urban markets, besides the rather small amounts of grain and oils supplied to urban consumers by the peasants in 1984, sales of other products like meat, poultry, fresh eggs, aquacultural products, vegetables and so on were equivalent to more than 30 percent of retail sales in state run commerce in the cities. The amount of poultry was 9-fold greater than that supplied by state run commerce. Sales of many commodities in trade fairs from January to September of 1985 have exceeded or are approaching the levels for all of 1984. Third, they have provided employment opportunities for idle labor power in urban and rural areas. The number of individual industrial and commercial households that have been approved by industrial and commercial administrative and managerial departments in Sichuan exceeds 1.2 million families and more than 1.5 million persons. Peddler households not yet certified number 800,000 people. Fourth, they have promoted the formation and development of small cities and towns.

Now, nearly 1,000 trade fairs are receiving more than 10,000 visitors, and many industries in these trade fairs have undergone corresponding development.

SICHUAN

ORANGE EXPORT INDUSTRY NEEDS REVITALIZATION

Chengdu SICHUAN RIBAO in Chinese 17 Nov 85 p 2

[Article: "The Orange Export Industry in Sichuan Urgently Requires Invigoration"]

[Text] We must construct improved variety foreign trade base areas, improve the layout of fruit processing, build commercialized packaging plants and use high grade high quality oranges to compete in international markets.

Yearly orange exports are about to begin. Sichuan began exporting oranges in 1951, began achieving success in 1953, and achieved an all-time high of more than 24,000 tons exported in 1964. The success of orange export work has changed China from an orange importer to an orange exporting county. We applied orange exporting technologies and also opened up domestic markets for Sichuan oranges, which ended the former total reliance on sales within the province itself. After this, oranges gradually became one of Sichuan's leading export commodities, accounting for about one-half of all orange exports in China for a very long period. Orange production has become the main body of fruit production in Sichuan and output has grown from the level of a few 10,000 tons shortly after liberation to about 500,000 tons at the present time, first place in China.

The main targets of China's orange exports are the Soviet Union, Mongolia, Korea and other nations, while Hong Kong, Macao and Southeast Asia have become a second large market. In recent years, however, the orange exporting situation in Sichuan has not been ideal. Although output of oranges has grown significantly, exports have fallen off. After reaching the historical record of more than 24,000 tons in 1964, it hovered around the 10,000-plus ton level for a long time and only 9,000-plus tons were exported in 1984. After 1982, exports to markets in Hong Kong, Macao and Southeast Asia basically ceased and were abandoned. The quality of Sichuan's exported oranges has been consistently good, but frequent indications of poor quality have appeared in recent years, to the extent that large amounts of them were returned in 1983 because of rotting.

Orange output in Sichuan in 1984 was more than double that in 1980, and about 10-fold more than shortly after the nation was founded. Ideally, large amounts should be supplied for export to create more foreign exchange. How is it, therefore, that exports have decreased, markets have shrunk, and quality is unstable?

1. Growth in orange output has not kept pace with increasing social demand, while sources of export goods remain in short supply. Although there are increased amounts of oranges in China, the per capita amount of oranges still is only a little more than one kilogram for China as a whole, which is low by international standards. Since the 3d Plenum of the 11th CPC Central Committee, the living standards of the Chinese people have improved and demand for hygienic and enjoyable fruits has risen substantially. In addition, the fruit processing industry in Sichuan has developed very quickly in recent years and demand for fruit raw materials has grown manyfold. The increased demand and smaller supplies have led to shortages in sources of materials and competition everywhere to make purchases, which has had a major effect on the completion of export plans.

2. Prices for incoming goods have risen, which has led to losses for exports and difficulties for foreign trade exports. After implementation of multiple circulation channels in 1980 and especially after the elimination of assigned purchases and allowing them to follow the market in 1984, the purchase price for Sichuan oranges has more than doubled. This has caused dramatic increases in the costs of export fruits, and the oranges intended for export now have experienced losses. The cessation of exports to Hong Kong and Macao markets is due precisely to excessive losses.

3. Picking and commercialized handling techniques have been damaged and commodity quality has not been guaranteed. Shortages in sources of oranges have meant that everyone is competing to buy them and cases of terrible early picking, crude picking and sudden picking are rife. This not only affects the quality of the oranges but also has seriously damaged their ability to withstand storage and resist diseases. The result is shortened supply periods, extremely short processing periods, and other harmful consequences. Moreover, there now are extremely few standardized packaging plants and most depend on "self-production and self-packaging" and "household-run plants." Good and poor quality fruits are mixed in together, technical levels are uneven, and product quality varies considerably. Foreign countries, however, place increasingly higher demands on commercialized processing technologies for fruit, and the difference is becoming greater.

Sichuan has excellent natural conditions that are suited to the growth of orange trees, and output at present cannot be considered small. In the past, Jin [6930] oranges exported by Sichuan had a very good reputation and the selling price of navel oranges consistently was rather high. The material foundation for orange exports was strong. For this reason, we should strive to expand exports, create more foreign exchange, and make use of Sichuan's advantages in oranges, and we should work for the development and formation of a large industry. In the long term, we first of all should strive to concentrate plantings of improved tree varieties in ecologically suitable regions in a planned manner and establish modernized orchards, and we also should select several counties with rather high output, convenient communications and higher quality fruits for determination as product source base areas for purchasing export products. Second, we should improve fruit processing, arrangements, improve processing levels, and produce industrial foods at modern levels. Third, in the area of fresh fruit exports and sales, we should

plan to build modernized, commercialized orange packing plants in export material base areas and strengthen commercialized processing work. Fourth, there should be a substantial proportion of improved orange varieties in Sichuan, and export oranges no longer should be limited to popular goods of dependable quality. No additional materials are required for exporting high-grade products while foreign exchange income does increase, so it should be attempted.

Orange exports come under state trade and must guarantee quality, amounts, and completion according to schedule to abide by promises. Several new problems in orange export work in Sichuan at present require resolution, and we should adopt certain measures according to local conditions to guarantee the completion of orange export tasks. Administrative departments at all levels should work under unified governmental guidance to coordinate purchasing; they must not compete to make purchases or intentionally create shortages. Even more, they should not make purchases of fruit in foreign trade base areas or hinder fulfillment of export plans. Commercial departments should set standards for packaged orange products for fruit buyers or producers, provide conscientious inspection of grades for purchases in foreign contracts, and adhere to the policy of higher prices for higher quality. There should be strict adherence to fruit picking techniques to prevent the picking of green fruit or crude harvesting. Fruit picking plans should be restricted to the appropriate times and carried out methodically. There should not be excessive administrative interference, nor should things be allowed to proceed uncontrolled. The appropriate administrative measures should be adopted now.

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CSO: 4007/129

SICHUAN

OUTPUT OF AMBARI FAR EXCEEDING SALES

Chengdu SICHUAN RIBAO in Chinese 17 Nov 85 p 2

[Article: "Production of Ambari Exceeds Sales, Administration Must Be Invigorated"]

[Text] Production of ambari insufficient to satisfy sales in China in 1984 caused prices to drift upward. Readjustment in agricultural structures during 1985 expanded the planted area and a nationwide situation of over-production relative to sales has reappeared. Annual output of ambari in Sichuan in 1985 will surpass 3 million dan and set a new record high. Apart from the one-fourth processed and consumed within Sichuan, the remaining three-fourths must be shipped out to other provinces or exported.

Sichuan must think of ways to sell more ambari more quickly rather than creating overstocks or cutting back on production in future years. The focus should be placed on "early, high quality and inexpensive." First, shipment for sales should be handled early. Output insufficient to meet sales in 1984 reduced factory stores, causing some to stop production while waiting for materials. We should seize this opportunity to utilize Sichuan's advantages in ambari harvests and early processing. It should be purchased and shipped out quickly. We should not wait to sell at a good price, hoard it for speculation, or miss opportunities. Second, quality should be high. Purchasing and outside sales should conform to quality standards. At present, quality should be the focus, and we should adhere to forming each kilogram into S-shaped pieces to facilitate utilization by industrial departments and the needs of export and foreign sales to increase competitiveness. Third, the price should be reasonable. The level of purchase prices for ambari in Sichuan in 1985 are in the mid range nationwide and do not have the advantage of low prices. While formulating administrative sales prices, we should strive to reduce profits and sell more using flexible prices to promote sales and expand domestic and foreign sales markets.

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SICHUAN

ON UNDERSTANDING CURRENT GRAIN PRODUCTION

Chengdu SICHUAN RIBAO in Chinese 28 Oct 85 p 4

[Article by Li Jitai [2621 0679 3141]: "Several Points To Understand in Current Grain Production"]

[Text] Editor's note: Comrade Li Jitai's essay is directed toward different points of view on this year's grain production. The essay's analysis is very thorough, the evidence is complete, and it is quite full of insight. It is worth reading. [End Editor's note]

Grain cultivation is one of Sichuan's four basic industries. This year's reduced grain output has for the time become the center of public attention. However, only by opening up new ways of thinking can we avoid the negative effects of fixed modes of thought and prevent following again the old road which took "grain as the key link." I will here discuss several problems in understanding current grain production.

According to the initial estimates of relevant departments, the total grain output this year will be 6 to 8 percent less than last year. This decline, coming after 8 consecutive years of increases in Sichuan's grain production, had been predicted. Starting in the second half of last year, we began to adjust the mix of crops being cultivated. At that time, relevant departments in the central government felt that 800,000 million jin is an average figure representing the level of Chinese grain production; during the restructuring of rural production, there is no need to fear fluctuations within 10 percent of total grain output. Sichuan also feels this way. Based on precisely this understanding, so far this year we have been accelerating the pace of restructuring and are intentionally guiding the peasants' enthusiasm for increased production into wider areas of production.

The reduced output of grain is fundamentally a normal fluctuation for grain production on a fairly high level. In regard to control of the total amount, after this year's decline in output, Sichuan's grain output still maintained the level of 1982, when there was a bumper harvest. The 76 billion jin of grain from that year effectively ensured continued economic development in Sichuan for the next 3 years. There is no reason for us to determine that the same amount of grain would instead deal a fatal blow to the currently fine economic situation, unless we ourselves make serious mistakes in the control and allocation of grain. Thus, there is no need to turn pale at the mention of grain.

It is very possible that the actual range of the drop in grain production is not as serious as locally reported to the higher authorities. This is not merely because of the frequent errors made in calculations using estimated production figures from samplings; there are the following factors to consider: The policy giving special support to poor mountainous areas has changed the tone of county reports, with more reports of bad news than reports of good news; for the past few years there was talk of grain as a contribution, and in a considerable number of villages, it was calculated according to the contracted output; starting this year there was no more emphasis on the size of the grain contribution, and so there is less exaggeration in the output reports collected from each county. In contracts fixing grain procurement, the tendency toward "centralized procurement" or becoming "mandatory" also strengthened the peasants' fear of frequent changes in policy, leaving the peasants with no choice but to report less than they harvested, or even to report none of their harvest. The conclusion that there is a relative surplus of grain has never been widely accepted, so that small market fluctuations make people feel ill at ease. Society's lack of confidence in grain makes it easy for people to exaggerate the problems existing in grain production. Although we cannot use quantitative indices to express these factors, we can positively say that they enlarge the discrepancy between each locality's reported output and its actual output. When analyzing the degree of the fall in this year's output, we should give full consideration to these feelings and not allow our estimates of the problems in current grain production to make the problems appear worse than they are.

We should admit, however, that our estimates failed to account for the sudden, steep movement in the grain output curve from the crest of the wave to the bottom in a short period of time. The comprehensive research report on strategies for the social development of Sichuan's rural economy stated that in reducing the area planted in grain, there is a safety margin which cannot be crossed: by the end of this century, there must be no fewer than 130 million mu. In 1984, Sichuan had 146 million mu planted in grain; based on this figure, for the next 15 years there are only 16 million mu of leeway. But this year, in 1 year's time, the area planted in grain was reduced by 7 million mu. Compounded by declines in per-unit yields, grain production is showing signs of rapidly approaching the safety margin. If this tendency cannot be checked promptly, grain production is in danger of going out of control. We cannot treat this problem lightly.

This year's decline in grain output is principally due to the interaction of market attraction and administrative pushing. The reduction in grain acreage and the drop in per-unit yields is nothing more than the form of expression of these two forces in action. To regard the latter as the principal cause of the smaller harvest is a misconception that is one of the negative effects of fixed thinking.

The total grain output is the product of the planted area and the per-unit yield, a basic fact of statistics. Basic facts often have the effect of governing the tendencies in people's thinking. The mere mention of the reasons for reduced grain yields easily causes people to think first of two factors, area and per-unit yield. In terms of causal relationships in the

system, if the market grain price is somewhat low, this restrains the enthusiasm for planting grain, and peasants automatically reduce the acreage and lower their investment, thus causing a drop in total output. It is difficult for us to make a correct prescription if we look for the cause in acreage and per-unit yields. To a very large extent it would be "wishful thinking" for the government to regard stable acreage and increased per-unit yields as its countermeasure. Should the government wish to rely on the power of administrative orders to make peasants passively accept this "countermeasure," this is not in harmony with the main theme of rural reform.

The decisive effect of attractive forces in the market was the premise for the state's abandoning centralized procurement of grain. The irrational price parities for agricultural products and the enormous income disparities within agriculture, industry, and commerce, have drawn the peasants' production enthusiasm to areas outside of grain cultivation. Rather than say that reduced output of grain is due to the peasants' lack of enthusiasm for growing grain, we should say that signs of loss of true value have steered the production initiative of peasants in other directions. Understanding this will at least help us to clarify two points: (1) the peasants' reorientation is normal and rational; (2) there is a definite blind element in this reorientation; only by rationalizing price relationships will it be possible to reduce and finally eliminate this mindlessness.

Administrative impetus has a positive effect on restructuring production. The problem is that if the pressure is too sudden and too hard, it will not only encourage the blind element in the reorientation of agricultural production, it will also seriously encroach upon the peasants' interests. The leaders of some counties and districts do not care to be "grain secretaries," and so gradually they forcibly regulate the ratio of grain to cash crops. Some of them try their hardest to "exhort" peasants to plant forage crops on land suited to grain, bringing about a sharp decline in grain acreage. This could have been avoided in the first place.

This year is not the only one with natural disasters. However, the reduced output of paddy rice was closely connected to damage from rice blast. Some believe that the large-scale prevalence of rice blast this year was a result of the monoculture created by increased use of paddy rice hybrids. There is definitely some truth to this opinion.

What measures should be taken for future grain production? Rationalizing the parity price relationships of agricultural products, diminishing the enormous income disparities between agriculture, industry, and commerce, and adjusting prices when there are signs of distortion, are fundamental measures for ensuring steady increases in grain production. Other supplementary measures cannot take their place. We can never skirt around this point and hope to find a correct solution to the grain problem.

Low grain prices harm peasants, poor peasants produce little grain, and little grain leads to soaring prices: these imply a self-regulating mechanism. Backward transportation and communication and the conservative production mentality of peasants have made the transmission, reception,

analysis, and feedback of price signals into a slow process, and have also weakened the self-regulating ability. To encourage the steady growth of grain yields, we should make full use of this self-regulating production system. This should be one of the starting points in formulating grain policy.

We should appropriately soften the strictness of procurement contracts, stabilizing the amount procured at a level which can basically satisfy the needs of the military and the urban population. Additional grain that the state requires can be obtained through purchases at the market price. This will expand the market demand for grain, enlarge the market's ability to stimulate the grain price, and enable peasants to receive an average profit for producing and selling this amount of grain. The grain which the state sells to areas lacking grain and centers of cash-crop production should gradually be sold at its purchase price, and, following progress in urban reform, grain used by city and town industry should, when there is the opportunity, be bought and sold at the same price. This will reduce financial subsidies.

Because there is not full market competition and tax management has lagged behind, the overly high incomes in industry and commerce include a portion of excessive profits and illegal income. In comparison, the external environment of peasant grain production has worsened and the "blind flow" of rural labor and funds has been encouraged. Using tax revenue and other economic levers to distribute nationally the excessive profits and illegal income will undoubtedly diminish the enormous income disparity between agriculture, industry, and commerce and secure the position of grain cultivation.

Reducing the price of agricultural production materials through financial subsidies and lowering the level of taxes and profit turned over to the state will harm the rationalization of industrial enterprise activity and also cannot stimulate the peasants' enthusiasm for investing more in grain production. Since peasants are unwilling to plant grain because of the low income, what good will it do to lower the price of chemical fertilizers and farm chemicals?

Let industry subsidize agriculture. Use a portion of funds from rural industry for the technical transformation of agriculture, so that the trend of rapidly diminishing grain cultivation can be delayed or stopped. However, due to Sichuan's weak foundation for rural township enterprises, township finances cannot make ends meet; except for a few areas, "industry subsidizing agriculture" is still only a conceptual guide and hypothesis. On the whole, it will be unable in the near future to reveal fully its beneficial effect on grain production.

The peasants' excessive burdens are not a direct cause of this year's reduced output of grain, however, they easily arouse antagonism among peasants. Reducing senseless burdens will help urge peasants to accept the guidance of the national plan and stir up their enthusiasm for making a greater contribution in grain.

In terms of its relative significance, the somewhat low output value for grain is caused by the relationships of irrational prices. As for its absolute significance, it is retribution for the production methods used to open and cultivate flat surfaces. The full use of fallow paddies in winter and expanding the area of dry land with three crops per year can improve the multiple-crop index and achieve relatively high actual yields. But because it is unable to effectively improve the ratio of inputs to outputs--"3 times 3 is 9, but better yet is 2 times 5 equalling 10" ["my old dependable way is better than your fancy new ways"]--it cannot be widely welcomed by the peasants. The only basic way to solve the problems of grain production is to practice three-dimensional agriculture, using fewer inputs to obtain greater outputs per unit area of land by means of integrating farming, animal husbandry, and processing.

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## SICHUAN

### BRIEFS

FRUIT OUTPUT--In 1985, Sichuan had a high yield and bumper harvest of citrus fruit, buying and selling were brisk. The citrus seed industry, foreign trade, and processing industry all achieved excellent economic results. Income for labor and service involved with citrus transportation, processing, and packaging increased, state taxes also increased. Based on preliminary statistics, the social output of citrus fruit in the province was more than 550,000 tons in 1985, a 22 percent increase over 1984. Because fruit farmers increased production and because fruit prices rose, the net increase in income was 160 million yuan. The export of fresh fruit earned 5.7 million U.S. dollars in foreign exchange. The output value of the processing industry using fruit for canned goods, juice, and wine increased 60 percent over 1984. As of the end of 1985, all channels procured more than 330,000 tons of fruit, purchases by the supply and marketing system accounted for about 60 percent. The province exported 200,000 tons of citrus fruit. [Text] [Chengdu SICHUAN RIBAO in Chinese 8 Feb 86 p 1]

CSO: 4007/302

19 March 1986

## XINJIANG

## BRIEFS

URUMQI MILK SUPPLY--Urumqi, 19 Feb (XINHUA)--Each resident of Urumqi, capital of northwest China's Xinjiang Uygur Autonomous Region, drank 13.7 liters of milk last year, almost doubling the figure for 1980, the XINJIANG DAILY reported. More than 13,000,000 liters of fresh milk were sold in Urumqi last year, local officials said. This makes Urumqi, a city with a population of 1.16 million, one of major cities with the best milk supply in China. There were 6,056 milk cows being raised around Urumqi last year, 2.8 times the 1980 figure. To bolster the city's milk supply the Urumqi authorities have made efforts to raise more dairy cows and improve the breeds in the past five years. Last year, each cow in the state dairy farms produced 5,400 liters of milk on average, 613 liters more than in 1980. [Text] [Beijing XINHUA in English 0735 GMT 19 Feb 86 OW] /8309

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YUNNAN

GRAIN PRODUCTION MUST NOT BE RELAXED

Kunming YUNNAN RIBAO in Chinese 11 Nov 85 p 1

[Commentary: "Grain Production Must Not Be Relaxed"]

[Text] The method of maintaining tight control over grain production used in the Li Jiang Naxi Autonomous County is well worth discussing.

To maintain a firm grip of grain production, it is first necessary to earnestly alter the idea that grain production can be taken lightly and relaxed. In recent years, many cadres have noted that Yunnan has had 5 successive years of bumper crops and that people in many areas have overcome the problem of food and clothing. Many feel that since grain production has overcome a major hurdle and that anxiety over food has disappeared, grain production should be given free rein. Leaving no room for doubt, since the 3rd Plenum of the 11th CPC Central Committee, Yunnan has registered remarkable growth in grain production. In 1984, for the first time, gross value in grain output in Yunnan broke the 20-billion-jin barrier, and increase over 1979 of 4.24 billion jin. The total growth in grain production during the last 5 years is equal to 52 percent of the growth in grain production for the previous 30 years. This is a circumstance rarely seen in the past 30 years. However, we must soberly observe that both the level of grain production and the per capita volume in Yunnan is well below the national average. Production for a typical unit is 20 percent under the national average and average per capita productivity is about 25 percent lower; there are also some areas in Yunnan where the people still have not solved the basic problem of food and clothing. Moreover natural conditions in Yunnan are complex and disasters occur frequently making grain production unstable. This year many areas first suffered from droughts, then from flooding, causing a reduction in output. This clarifies the problem.

It is of prime importance to realize that if growth in grain production is unstable, there is no basis upon which to continue the readjustment of the rural production structure. Yunnan has an abundant variety of excellent commodities other than tobacco, sugar, and tea waiting to be developed. Hence it is imperative that the production structure continue to be adjusted. But if grain production fails to increase, land will not be available for other plants and cash crops and Yunnan will not be able to take advantage of its natural endowments. Also, if grain production does not increase, the breeding and processed-food industries will suffer restrictions, influencing the improvements in daily life of both rural and urban dwellers. Moreover, rural

labor will be unable to transfer its energies to other areas of production and to the development of integrated management of agriculture, industry, commerce, and shipping. It should also be pointed out here that it is unrealistic to believe, as some do, that Yunnan can depend on grain transfers from other provinces to help promote the readjustment of the rural production structure. If a small amount is transferred annually, that is acceptable. But in Yunnan transportation is poor and distances between shipping destinations great, so if a large volume of grain were transferred from other provinces, the shipping cost would be high and hence the expenditure great, making it uneconomical. Thus Yunnan must become basically self-sufficient in grain. The rate of growth in grain production is closely related to the overall problem of national economic development and social stability. It is the foundation for the readjustment of the rural production structure and a factor in the coordinated development of other industries. Each area must put grain production in a prominent position and it can neither be relaxed nor neglected in the slightest. In the future, even more of our energy must be focused on guaranteeing the continuous, stable growth of grain production throughout the province.

To assure steady growth in grain output, not only must ideological awareness be reconciled, but we must also emphasize technological transformation, raise the level of scientific cultivation, and stress the raising of unit productivity. At the same time, it must be guaranteed that a definite area is planted in grain. As far as possible, cash crops should not occupy good grain land and good paddies. If land is to be withdrawn from grain cultivation and restored to forest or pasture, it should be carried out realistically, step by step and one section at a time, so as to avoid precipitous rises and falls in grain production. Grain production must be given due assistance in every area. Outside of financial support provided by the nation, each county is responsible for providing definite financial and material support to aid in the growth of grain production. Relevant departments must actively provide grain farmers with water supplies, machines, plant protection, and technical services. In order to maintain the positive attitude of the farmers, in areas where rural enterprises are growing quickly, a method of "industry subsidizing agriculture" can be set up based on the strengths and capabilities of the particular area. By diligently working to reduce the income gap between industrial and agricultural workers and inspiring farmers to realize that there are benefits to be had, grain production can be increased.

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YUNNAN

USE OF STORED GRAIN AS PRICE CONTROL LEVERAGE URGED

Kunming YUNNAN RIBAO in Chinese 10 Nov 85 p 1

[Commentary: "Make Sure Grain Is Stored Well"]

[Text] In recent months, headway has been made regarding the fixed-quota grain-purchase contracts as all levels of government have improved their leadership. This commentary will explain the need to carry out the painstaking task of political indoctrination so that this duty can be completed.

At present, grain in storage has been uneven throughout the province and in some places grain is not being stored quickly enough. The main reason is that some cadres and people lack a complete understanding of this year's proportional purchase price. They would rather "hold back grain and hedge on inflation." Thus a combination of propaganda to effectuate the spirit of the National CPC Congress and a process of painstaking thought-reform directed at grassroots cadres and the masses is necessary to clarify the rationale behind the pricing system. This year's proportional pricing is a significant reform in the fixed-quota grain-purchase contract system. Before this year purchases from rice paddies beyond a certain volume drew a higher price, which lead to a situation in which the proportion between grain, other cash crops, and livestock products was irrational. In this year's proportional price system, areas that depend heavily on grain production will receive suitable price subsidies out of a concern that grain farmers receive realistic benefits. Based on calculations of last year's integrated purchasing price of rice (which included general price, bonus price, and double bonus price) and this year's real proportional grain-purchasing price, farmers in most areas will see very little reduction in their incomes. Moreover, since price controls of vegetables and pork have been relaxed, farmers' real income may increase. Prices for all agricultural products are now becoming more rational, which is beneficial to the development of the entire rural economy and to the peasants themselves.

When it is time for contractually purchased grain to be stored and after contracted grain obligations have been completed in the high-production areas, the grain departments can negotiate more sales and purchases in accordance with market demand. A diligent effort must be made to restrain grain prices at rural markets, for stable grain prices must be maintained there. In places where grain prices are high, a planned method to curb them must be enacted;

at rural markets where grain prices are low, the trend must be carefully controlled so that when inflation is discovered, restraining measures can be taken at the right moment. The application of pricing levers to guide the grain market must be mastered. It should be noted that farmers desire to sell rice, so if the market price of grain is stable, the attitude of farmers toward "holding back grain and hedging on inflation" will change and they will sell their grain to the nation.

It is hoped that the grain department will do a better job and go all out to get grain into storage as well as facilitate the farmer's sale of grain. Storing grain is a vital job, but deadlines cannot be set as they were in the past. According to the revised purchasing contract, payment will occur immediately following the purchase, which is most convenient for the people. Finally, upper level grain departments should not judge lower level departments by the speed with which grain is stored, but according to the quality of their service.

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YUNNAN

TEA PRODUCTION RISING RAPIDLY IN YUNNAN

Kunming YUNNAN RIBAO in Chinese 3 Nov 85 p 1

[Article: "Tea Takes Three Strides Forward in Yunnan in Past Five Years; Circulation Improved, Exports Increase "]

[Text] Tea production has grown rapidly in Yunnan during the past 5 years. Output this year may exceed 600,000 dan. Total output, intraprovincial sales, purchasing expenditures, self-managed enterprise exports, and foreign exchange all have more than doubled since 1979.

For a long period, tea production and purchases in Yunnan hovered between 200,000 and 300,000 dan. By 1979, self-managing enterprise tea exports still did not exceed 33,000 dan and foreign exchange earnings were \$6.4 million. Since the 3rd Plenum of the 11th CPC Central Committee, the provincial CCP and the Yunnan government have been determined to promote tea production and make every effort to expand the production of tea for export as well as guarantee marketing outlets and stimulate domestic sales. Moreover, they promulgated a series of policy measures geared toward developing tea production. Tea-refining plants have effectuated a profit-rebate plan; they also receive a subsidy for crossing into different regions to get raw tea. Tea purchasers can get a bonus on grain, and if a tea purchase surpasses a set amount, a jin of grain is awarded for each additional jin of tea purchased and the tax is reduced as well. And economic assistance is being offered for the transformation of low-production tea plantations. The Yunnan Tea Import-Export Co. also supports tea production through financial aid, interest-free loans, and assisting in the cost of production. This year the system of tea distribution was restructured; now there are many avenues of distribution as against only one before.

The enactment of these policies has mobilized the positive participation of peasants in tea regions as well as tea plant and management departments. Major tea-producing areas have embraced tea as the backbone of prosperity. Areas with the right conditions are actively developing new tea plantations. From 1981 to last year, more than 100,000 mu of low-producing tea plantations were transformed each year into 76,000 mu [as published] of high-producing fields, allowing total tea output to take three great strides in 5 years. In 1981, the 400,000-dan barrier was broken; in 1983 it was the 500,000-dan barrier and this year production will surpass 600,000 dan. Following the

restructuring of distribution outlets has been the active promotion of tea plants to produce tea for export; both the quantity and variety of export tea has increased. If you compare this year with 1979, self-managed enterprise tea exports are 200 percent higher, foreign exchange earnings are more than 100 percent greater and intraprovincial sales have reached 200,000 dan, an increase of nearly 100 percent. Finally, income of tea farmers has increased by more than 14 million yuan over last year.

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YUNNAN

WAYS TO ACCELERATE TEA PRODUCTION

Kunming YUNNAN RIBAO in Chinese 7 Nov 85 p 2

[Article by Su Fanghua [5685 5364 5478]: "How Can Tea Production Be Accelerated in Yunnan? Highlights of the Annual Yunnan Tea Society Conference"]

[Text] In the middle of October more than 70 tea experts and technicians of the Yunnan Tea Society came from various tea regions to meet in Kunming and research ways of promoting Yunnan tea, raising quality, developing marketing and exports, and standardizing production.

The participants analyzed the excellent trends in the Yunnan tea industry and took note of the great strides in tea output over the last 5 years. This year tea output may reach 600,000 dan, a reflection on the influence of present policies. Looked at in the long run, Yunnan tea has great potential for both domestic and foreign sales, so every effort must be exerted to its continued expansion. But there are still many problems. For example, in some tea-growing regions, the people detest planting tea because it takes so long to reap the benefits. Even though high-yielding tea plants are intensively cultivated, it still requires 3 years before it can be harvested, unlike the speedy results obtained by planting tobacco. Much of Yunnan tea is for export, but the tea market is fiercely competitive. Hence if the quality is not up to par, it will be squeezed out of the market. Experts feel "in suitable places tea must be actively developed, production per unit raised, quality controlled, suitable markets pursued, and competitiveness enhanced." These principles for development are quite realistic and should be resolutely carried out. This is a series of excellent recommendations.

Some experts recommend that planning commissions in various places take the initiative to organize work teams comprised of farmers and foreign trade department people to diligently carry out the measures and policies of the Seventh 5-Year Plan for the development of the tea industry. The plan is to earn foreign exchange by promoting and expanding the export of black teas from the ideal tea regions of Yunnan that raise black and Pu'er tea for export. To speed up the growth of the tea industry, tea industry technicians stress the importance of a continued relaxation of policies. Yunnan tea regions are generally mountainous and the tea farmer's grain ration is relatively small. Thus, the rice bonus must be maintained and suitable economic support should be given for the development of new tea plantations. Assistance must

continue to be provided for the transformation of low-producing tea plantations and special low-interest loans must be extended for construction and expansion of initial processing plants. The profit-rebate system currently operating should be simplified as should the subsidization of raw tea reallocation.

Many comrades reel that the technological weakness in the Yunnan tea industry is the main obstacle to accelerating its growth. At the same time that the specialization of the Yunnan tea industry is instituted, the Simao Agriculture School tea curriculum should have its staff and resources bolstered to enhance the learning environment and student recruiting should be stepped up. Vocational schools in the appropriate areas should establish a tea curriculum. Concurrent with the acquisition of knowledge and investment in construction, the development of good tea varieties must be accelerated and new high-quality tea plantations for the development of asexual propagation will be established in the major producing prefectures of Simao, Xishuangbanna, Lincang, Dehong, Honghe, Baoshan and the major counties of Menghai, Shuangjiang and Jinggu. The experts also recommend that relevant departments continue the job of transforming low-production tea plantations. During the Seventh 5-Year Plan, a group of standardized tea plantations should be developed that can achieve a productivity target of 200 jin per mu. The Yunnan government plans that by 1990 provincial tea production will reach 900,000 to 1 million dan and that 500,000 dan will be for export.

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## ZHEJIANG

### FLEXIBILITY KEY TO COMMON PROSPERITY FOR PEASANTRY

Beijing NONGYE JINGJI WENTI [PROBLEMS OF AGRICULTURAL ECONOMICS] in Chinese  
No 11, 23 Nov 85 pp 31-34

[Article by Chen Yan [7115 3508], Wu Minyi [0702 2404 0001] and Yao Xinshen [1202 2450 3947] of Zhejiang Province Planning and Economic Commission, Economic Research Institute: "The Route to Common Prosperity for the Peasants--Revelations from the Growing Imbalance in Peasant Incomes in Zhejiang Province"]

[Text] Major changes have occurred in the rural areas of Zhejiang Province since the 3d Plenum of the 11th CPC Central Committee, and peasant living standards have improved year after year. According to a sample survey of 1,020 peasant households throughout Zhejiang, the average net per capita peasant income was 446.4 yuan in 1984, up by 227.2 yuan over the 1980 figure of 219.2 yuan.

Why have peasant incomes apparently doubled in these 4 short years? What are the inherent mechanisms of the increase? Why is there imbalance in the growth? What common regularities are there? This article will attempt a preliminary exploration on the basis of theory and practice.

#### I. The Effects of the Three Major Breakthroughs in Rural Areas on Increases in Peasant Incomes

Price readjustments for agricultural and sideline products are one important factor in the increase in peasant incomes. One of the main reasons for the slow growth in peasant incomes over such a long period was that the prices of farm and sideline products were too low while the prices of industrial products were too high. This irrational price ratio made it impossible for the peasants to obtain more income from additional labor and suppressed their enthusiasm for production. In 1979, the CPC Central Committee raised prices for farm and sideline products by a substantial amount. The purchase prices for farm and sideline products in Zhejiang rose by 20.1 percent, and the peasants received more than 600 million yuan in actual benefits, the average peasant income rising by 18 yuan throughout the province. The price increases not only provided economic benefits directly to the peasants but also improved their enthusiasm for labor.

Readjustment of the relations of production in rural areas is the basic motive force in raising peasant incomes. Zhejiang Province tried out systems of production responsibility following the 3d Plenum of the 11th CPC Central Committee, but they became widespread only after 1982. By June 1983, 98 percent of the production teams in Zhejiang had implemented systems of production responsibility with household contracting for output quotas. This breakthrough in the relations of production and forms of administration caused agriculture to develop at an unprecedented pace, and peasant incomes have increased substantially. Average per capita net peasant incomes reached 346 yuan in 1982, up by 23.6 percent over 1981. Of the 472 households in Sanjie Village of Fuhai Township, known as a "village of flowers and trees," four households had annual incomes of more than 10,000 yuan, 20 percent exceeded 5,000 yuan, and 52 percent exceeded 2,000 yuan. A situation of "one person becoming wealthy and then carrying along a whole area" appeared.

Changes in industrial structures in rural areas are another important factor in the growth in peasant incomes. Continual perfection of systems of production responsibility in rural areas and flourishing development of the diversified economy and of industrial and sideline production also have led to obvious changes in industrial structures in rural areas. The leading force of rural industries surged forward in 1984. The output value of industrial and sideline production in Zhejiang reached 15 billion yuan, exceeding the value of agricultural output for the first time. This has led to basic changes in the monolithic focus on grain in rural areas. This sort of change in industrial structures is accompanied by the separation and movement of large amounts of rural labor power. The labor force in Zhejiang engaged in non-farming activities exceeded half of the total rural labor force for the first time in 1984. New shifts of labor power during 1984 exceeded 1.10 million. Average net per capita peasant incomes made a new breakthrough and reached 446.4 yuan, up by 24.4 percent over 1983.

## II. The Mechanisms of Economic Development in Different Income Regions

Nevertheless, the development of the rural economy and growth in peasant incomes has been unbalanced. This lack of balance is manifested in spatial distribution by differences in per capita peasant incomes between different regions and even incomes between different peasants in the same region, and they remain large. It also is manifested in a time sequence in cases where peasants formerly had rather low incomes but now have jumped to the ranks of high incomes, with some people becoming rich first.

We have divided income into high, middle and low levels. According to a 1984 rural family livelihood survey, high-level incomes classified according to region are mainly distributed in the plains, where net per capita incomes were 498 yuan, some 51.6 yuan higher than the average. Middle-level incomes are found in hilly regions, where net per capita incomes reached 408.55 yuan. Mountain region incomes were at the lowest level, with a net per capita income of 367.83 yuan, nearly 100 yuan less than in the plains. Classified according to industry, peasant incomes were highest for vegetable growers in suburban areas, fishermen in fishing areas and in cash crop regions, where the average net per capita incomes were 1,109.5 yuan, 597.5 yuan and 559.96

yuan, respectively. They were lowest for grain and forest households, with net per capita incomes of 409.79 yuan and 367.3 yuan, respectively, both below the average. Classified according to specialized households and non-specialized households, the net per capita income of specialized households was 706.45 yuan, while the income of non-specialized households was 437.76 yuan. Classified according to the number of people supported by each laborer, data for 1983 showed that families with net per capita incomes over 500 yuan supported 1.32 people, families with incomes from 200 to 500 yuan supported 1.59 people and families with less than 300 yuan supported 2.12 people. Classified according to growth rates, the rate of increase in high income regions was greater than that in low income regions. Comparing 1984 with 1983, the growth rate for those with net per capita incomes over 500 yuan was 29.6 percent, 21.9 percent for those with incomes of 350 to 500 yuan, and 16.2 percent for those below 350 yuan.

The sort of static categorization and comparison described above only tells us the outline of the distribution of different income regions but cannot explain the mechanisms of different rates of economic development in different income regions. This requires in-depth analysis of the inherent factors in the economic development of different income regions and also requires an examination of dynamic characteristics.

First, change single farmland administration to economic diversification.

Agriculture is an ecological system with complex functions and multiple types. It requires close integration of all sectors within agriculture to form a benevolent cycle. In the past, however, we had a superficial understanding of agricultural development as meaning only the development of cropping, and that the development of cropping meant the development of grain production. The absolute majority of labor power was input in a concentrated way on a rather small amount of land. This does not conform with the needs of agricultural ecology, and it caused the incomes of the large numbers of peasants who were engaged solely in cropping to constantly be low, leading to the appearance of many poor villages with high output. Practice in recent years has amply proven that peasant incomes can be raised only through transformation of this type of single farmland administration. In Yin Zhu Village, one of the grain producing regions of Tonglu County, for example, 700 mu of river beach land and 500 mu of land prone to waterlogging and drought with low grain yields were changed over and planted with mulberry trees. The average yearly income from planting mulberries and raising silkworms is 400 to 500 yuan per mu, more than three-fold greater than the original income from planting grain. Another example of economic diversification is the development of flower growing. The area planted in flowers and plants in Zhejiang reached 47,000 mu in 1984 and total output was 268 million yuan. The average output value per mu exceeded 5,800 yuan, first place in cropping. Sanshiliuwan Village of Dong'ao Village in Fenghua County is famous throughout China for growing five-needle pine. Per capita value of output exceeded 8,000 yuan and per capita net incomes were nearly 2,000 yuan.

Second, develop rural industries and change from a "focus on agriculture" to a "focus on industry." For a long time, a production pattern dominated by

agriculture has been in force in rural areas. The peasants wanted to become prosperous but could only think of agriculture. Events in rural economic development in recent years has forced everyone to acknowledge that the source of wealth in rural areas does not come mainly from agriculture but instead from industry. The outlet for the surplus labor force in rural areas does not lie in the cities but instead in development of rural industries. In 1984, the total output value of township and town industries (based on constant 1980 prices) reached 12.07 billion yuan and accounted for 45.8 percent of the total value of output in rural society. The development of rural industries has brought about historical changes in industrial structures in rural areas. In Shaoxing, Yinxian, Xiaoshan, Yuyao and Cixi counties, which historically have been places where "agriculture dominated," the total output value of township and town industries in 1984 exceeded 1.4 billion, 900 million, 700 million and 600 million yuan, respectively. Everyone calls these counties the "five contending tigers." In contrast, one of the reasons for the poverty of the peasants in some low income areas is that they have not developed rural industries. We can use the example of Huangyan County as an obvious comparison. This county has 15 townships and towns (21.13 percent of the total) with rather developed rural industries. About 70 percent of the labor force is engaged in industry, and the income from industry accounts for more than 60 percent of the total incomes of farm families. Its net per capita incomes exceed the average for the whole county, and a group of 10,000 yuan households has appeared. There are an additional 16 townships and towns (accounting for 22.54 percent) however, that are located mainly in mountainous areas. They are engaged solely in cropping and have very few rural industries. There is even one township and 297 villages that have had none to the present day. The peasants lives are poor and net per capita incomes are below 200 yuan.

Third, development of specialized markets and country trade fairs to enliven circulation is another economic mechanism that has increased peasant incomes.

The growth of township and town industries and the rapid development of regional specialized households and specialized villages are associated with the formation of a group of specialized markets. Specialized markets not only open up relationships between town and country but also increase peasant incomes. According to 1984 statistics, Zhejiang had 489 specialized markets and 2,058 rural trade fairs. The Qiaotou button market in Yongjia County has become a nationally famous button trade center that sells products to more than 200 button plants across China. More than 3,000 visitors and businessmen come from inside and outside of Zhejiang to trade here each day, and Hong Kong newspapers have called it the "world's premier large eastern button market." The initiation and impetus of the specialized market has led to the development of more than 90 button processing plants in Qiaotou Town and the surrounding rural areas with an annual output value of more than 15 million yuan, and they have made the local residents and peasants rich very quickly. But the situation is the same in Yongjia County, where the peasants still live very poorly in many areas because of a very underdeveloped commodity economy. The net per capita income of the peasants of the county was only 292.2 yuan in 1984, much lower than the provincial average.

Fourth, development of tertiary industries is a new path for making the peasants wealthy.

Because we placed superficial stress in the past on "producing first and living last" and ignored the development of tertiary industries, the result was food, housing and buying problems for urban and rural people. Commercial networks, food and beverage services, communications and transportation, posts and telecommunications, culture and entertainment, and other facilities were extremely backward. Rural commerce and the food and beverage industry in Zhejiang accounted for only 2.5 percent of the total output value of rural society, while communications and transportation accounted for only 1.62 percent. This not only made people's lives very inconvenient, but the lack of coordinated development between the primary and secondary industries and the tertiary industries also seriously inhibited the development of the commodity economy. In recent years, reforms in circulation systems and the development of township and town enterprises and specialized markets also has led to corresponding growth in tertiary industries in rural areas. More than 310,000 peasants are now engaged in commercial buying and selling activities in Zhejiang, "leaving the soil without leaving the village," while more than 50,000 have gone to small towns to open shops and set up stands, 174,000 are engaged in shipping and 230,000 are engaged in services. The development of tertiary industries has become a major path for the peasants to take in becoming prosperous. Jinqiao Village in Fuyang County has made great efforts to develop service industries, retail commerce, the shipping industry and so on. The total value of industrial and agricultural output was 18.88 million yuan in 1984, up by 6.52 million yuan over 1983. The value of output from tertiary industries accounted for 3.56 million yuan of this, equal to 54.6 percent of the new increase in output value.

Fifth, the out-shipment of rural labor is another characteristic of economic mechanisms in high-income regions.

Zhejiang Province has a large population and little land, with extremely abundant labor resources. Moreover, the people are hardworking and skilled. Many regions have traditional handicraft techniques and historically have sent out labor power to all provinces and cities of China. After the 3d Plenum of the 11th CPC Central Committee, we broke through the fetters of "leftist" regulations, and this strength has begun to be restored and grow once again.

According to incomplete statistics, Zhejiang has sent out 1.13 million people for labor services. More than 280,000 laborers have left Wenzhou City alone and has a gross income of 547 million yuan in 1983, equal to 39.3 percent of the total value of agricultural output in the city. The income per laborer reached 1,928 yuan. Jinyun County has more than 10,000 people who are raising ducks in other areas scattered across 13 provinces and municipalities, and the annual value of output is about 70 million yuan.

### III. Deriving Common Regularities from the Imbalanced Income Growth

Different mechanisms of economic development have brought about differences in the poverty or wealth of peasant incomes. What are the primary objective

causes that create these different mechanisms of economic development? An exploration and clarification of this problem would contribute to achieving a basic solution to the problem of rural poverty.

First, the basic point of the three instances of major breakthroughs in rural areas, especially the latter two breakthroughs, was to raise the percentage of marketed products in rural areas. Since the rural economy has now become a commodity economy, making the peasants prosperous requires consideration of an inherent characteristic of the commodity economy, the law of value.

The law of value demands that consideration be given to two points during development of the rural economy: First, what to produce and how much to produce should be determined according to market capacity and demand. Concretely speaking, the question of what changes to make in industrial structures requires market forecasting and selection of industries with high income elasticity, meaning that we should select industries in which demand will increase as national income grows, not those in which demand will decline and shrink as national income increases. Second, the development of industries or products requires consideration of the relationship between production costs and market prices. One major weak point of rural areas in comparison with cities is their weak technical strengths and poor equipment and conditions. This means that rural labor productivity is rather low in relative terms. Under such conditions, industries and products chosen for development should consider the amount of socially necessary labor time required to produce a unit product. If the industries or products developed have poor results, they cannot serve as a direction for readjustments in industrial structures.

For the past several years, regions in which peasant incomes have grown quickly have respected this principle during changes in industrial structures. In contrast, there are some poor regions that have developed rural industries or tertiary industries with low benefits and poor results because they failed to start with market demand in developing industries or products, or because the industries or products they developed suffered serious losses.

For this reason, the first problem in imbalanced growth in peasant incomes concerns whether or not readjustments in rural industrial structures take into consideration the inherent characteristics of the commodity economy.

Second, a leading industry must be selected if we wish to make the peasants prosperous as quickly as possible. Leading industry refers to its ability to pull along other industries to form a new industrial chain. High-income regions consistently selected leading industries for economic development on the basis of the following aspects: The first was links with their surrounding environment, including market linkages such as the supply-demand situation, competition, ease of attaining information, and so on. The second was the natural resources of the local area, including the organizational components of the resources, amounts available, and so on. The third consideration was the environment, which can play a role in restricting industrial structures. Moreover, development of leading industries requires consideration of advantages in labor force structures and technical structures.

It should be noted that some regions have developed some new industries but the failure to select a leading industry meant that they were unable to free up a great deal of labor power to move the peasants toward high income locations.

Third, if we wish to raise peasant incomes we must pay attention to the development of industries with rather rapid growth in productivity when changing industrial structures. One thing about these industries is that they have few restricting factors, including restrictions in manpower, materials and finances. Second is that they readily gather momentum, meaning that once an industry or product is established it will become increasingly easier and opportunity will follow opportunity. An example is the Qiaotou button market in Yongjia County, as described above. Yongjia County as a whole remains a poor region and has no particular strengths, but the momentum factor enabled the formation of a national specialized button market. The third is benefits of scale. Any rational scale should not be restricted by the scale of management but should take note of the comprehensive role of the various restricting factors and whether or not they will be able to obtain maximum economic results. Some specializations have a very small scale but produce substantial results. Many areas have quite a few rural industries but poor results. The reason is that they did not consider the effects of the various comprehensive factors on the effects of scale.

Fourth, we must pay attention to science and technology and the use of skilled people. This is the key to economic invigoration and making the peasants prosperous. Practice has demonstrated to peasants in many high-income regions the truth of "no progress without talent." Scientific and technical personnel are considered the "gods of wealth" and are recruited regardless of cost. The economy in several counties in Hangzhou Prefecture has developed very quickly in recent years and the peasants are rapidly becoming prosperous. One important point is that they utilized talented people from urban enterprises and established ties with institutions of higher education for scientific research, production associations and so on. Practice has proven that all areas with concentrations of talented people and rather high educational levels have developed township and town industries quickly, and the peasants have grown prosperous quickly as well. This trend was obvious from the data of our family livelihood survey. In 1984, the net per capita income of peasants with upper middle school and college educations was 519.72 yuan. The net per capita income for peasant households with lower middle school and agricultural middle school educational levels was 448.83 yuan, while the net per capita income of elementary-level and illiterate people was 392.57 yuan.

In summary, if we wish to eliminate poverty and make all of the peasants prosperous, we must be able to adapt to changes in development of the rural commodity economy.

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